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**Glossary**

A glossary can be found on our website
The Climate Crisis is one of the biggest challenges of our time. On a factual level it is complex and on an emotional level it is hard to process. One of our “Thinking of Europe” Fellows encapsulated this dilemma in a nutshell: “we are at a point where we have all the data. It is all proven. It is happening. And I think young adults are aware. But the point is to make the transition to actually take action”. In his statement, we identify three main fields, which also guide this year’s Educational Briefing: climate knowledge, climate consciousness and climate action. How are these three major tasks connected and how can we tackle them in everyday life? What does successful climate communication look like and how can it lead to self-efficacy and action instead of despair? And ultimately, how can we develop a comprehensive idea of climate education that takes all of this into account?

In the first part of the briefing, we focus on climate change communication. In his contribution, the media researcher, Alexander Schindler, emphasises that climate communication is about much more than simply understanding what causes climate change. All the climate news we consume contains an appeal to the public: how can climate change be curbed as quickly as possible? What measures are necessary at the various levels? And who should change their habits and to what extent? In a best practice example, Isabela Neague, the coordinator of Understanding Europe Romania, shows how these calls to action can be communicated on social media platforms in such a way that they touch young people’s lived experiences. She introduces us to the visual results of workshops that enabled young participants to develop their own augmented reality filters around climate issues they found most pressing. Neague argues that climate issues need to be communicated as closely to the habits of young people as possible – as a problem that concerns all of us directly. Discussing this argument from an academic perspective, Schindler points out how to avoid knowledge gaps, what it means that the climate crisis is increasingly becoming a human rights topic, and how the temporal dimension of climate change can be explained in a new language.

In the second part of the publication, we dive into what comprehensive climate citizenship education should look like. Magid Magid, a politician and climate justice activist, and Dr Joshua Forstenzer, a senior lecturer in philosophy, make painfully clear that we should abandon the hope that enlightened elites will take the necessary steps without pervasive and overwhelming public pressure. They advocate for strategic and well-coordinated social action by civil society which unites ‘one billion climate activists’ in a struggle for a liveable and just future. Luisa Hieckel, a former trainer of Understanding Europe Germany, reflects on ethical considerations of understanding and teaching climate justice in the Global North. Beyond much-cited intergenerational justice, the concept of climate justice shines a spotlight on historic injustices such as European colonisation and present-day inequalities. Both articles consequently strongly recommend mak-
ing economic and political privilege, which Hieckel frames as the “Imperial Mode of Living” in the Global North, the central pedagogic framework for climate education. Noting that the climate crisis urges us to find ways to live with it, the authors make practical suggestions for how educators can strengthen civic competencies, preparing their students to shape a liveable future for themselves.

In the last part of the briefing, we move on to climate action. In an interview, Patu Ndango Fen recalls her motivation to become an environmental engineer and a successful social entrepreneur in Cameroon. She advocates for adjusting the language we use when talking about complex climate issues to certain audiences and reminds us that justice is not just about global inequalities but also about social class. Moreover, she gives practical tips on where activists can find support and what the educational sector can learn from environmental entrepreneurs in the Global South.

This publication emphasises that climate education is not only about understanding the consequences of the climate crisis. It is about developing utopias for a good life in the future through democratic processes and communal experience. This good life, however, cannot be a privileged life for Europeans at the expense of others – as it has been for centuries. Instead, it should be based on a just notion of togetherness and inter-connectedness.

We wish you a challenging and thought-provoking read!
VOICES FROM THE UNDERSTANDING EUROPE NETWORK ON THE CLIMATE CRISIS

“We are at a point where we have all the data. It is all proven, it is happening. And I think young students and young adults are aware. But the point is to make the transition to actually take action. It is simple to say, but complex when doing it. Still, I am very convinced that everyone can contribute something by taking small actions.”

Thanh, “Thinking of Europe” Fellow 2022

“For me, the biggest challenge in the classroom is where to start and what to focus on. When you speak with students about the climate crisis, the question arises of what the European Union, the European Parliament and national governments are doing against it. Yes, plastic straws are forbidden now, and it is a nice start, but this alone will not save us! On a structural level, law-making processes and big companies need to change. The challenge of bringing economic interests and the protection of nature together has been discussed a lot in my courses. Many of these classroom discussions end up in the debate ‘money versus climate?’”

Rebekka, Former Peer Trainer, Understanding Europe Germany

“In Türkiye, schools and universities are providing plastic cups to drink water, so people are used to that. At my university, I was using a reusable water bottle. In the beginning, all my friends were like: ‘this is not clean, you will get sick with this bottle. You should use plastic bottles instead’. Now, most of my friends have reusable bottles because I explained why they are so much better for the environment.”

Gül, Peer Trainer, Understanding Europe Türkiye

“My impression is that young people need role models. Maybe invite climate activists, and climate experts to schools to talk about what they do in their daily lives, working with NGOs or working on campaigns to promote climate awareness. It is hard to convince someone that there is a real problem until they feel it. Also, for me it is heart-breaking to see that young people in Romania believe so little in our potential as individuals to have an impact. I think we must empower them, young people need to be moved. We have to show them that we can start small and then go bigger and bigger.”

Claudia, Peer Trainer, Understanding Europe Romania
Communicating climate change: How do we research and communicate locally-globally?

BY ALEXANDER W. SCHINDLER

About the author

Alexander W. Schindler is a research associate and doctoral candidate in the area of media studies at the University of Potsdam. His research focuses on the sociological and media theoretical foundations of science communication education programmes. He also works on prestigious international projects on the social impacts of climate change, such as Critical Zones. Horizonte einer neuen Erdpolitik (ZKM Karlsruhe & MIT Press), Anthropocene Curriculum (HKW & Max Planck Institut für Wissenschaftsgeschichte Berlin) and Re-Imagine Climate Change Communication.

Communicating knowledge about man-made climate change presents communication experts with new challenges. One of the biggest difficulties is relating abstract findings from climate science to concrete actions. This problem is anything but trivial. Never before in the history of science communication has the need to communicate facts to people of all generations and from all cultures been so pressing or the need for action so urgent. This concerns policy-makers and the education system but also the media, the economy and civil society. Another factor that exacerbates the situation is that communication has to take place under the influence of increasingly “strategic disinformation”, in other words politically or economically motivated deception through misinformation, which is disguised as scientific findings. So communication challenges are not just about explaining what climate change is and how it is caused. With every report, whether on rising global temperatures or climate change-related environmental or economic disasters, the urgent question arises as to how climate change can be contained as quickly as possible, which measures are necessary at the various levels and – not least of all – who should change their habits and to what extent.

The purpose of this paper is to offer three examples of how climate change can be communicated in such a way that connections can be made between the incomprehensibly vast “global” issues and the “local” conditions that directly surround us. This is relevant both to communication research and to media and education makers, because, in future, climate change communication must take place to an increasing extent in specific local measures and thus especially close to people (Born 2019).

Avoiding big “jumps” in climate change communication

In climate change reporting, it is common to start with a map of the world showing temperature changes as coloured areas, and then to jump to images of the sources of this change (for example, the coal or oil industry), or images of the impacts of climate change (ice melt, arid soils, floods, etc.). Reverse “jumps” are equally common: first the causes or impacts are presented, then a global map or curve charts (Schneider 2018). This “jumping” mechanism is a modern technique that functions far beyond the example cited here (Latour 2017: 300). These “jumps” between visualisations such
as map views, charts or photographs are made possible by scaling techniques. The term scaling describes the change in the size or quantity of a thing or, as in our example, the size of a view of a thing. Scaling something for the first time is extremely complex in highly precise technological or scientific fields, which is why it should be as replicable as possible. In addition to extensive data, an appropriate media technique is needed, like a camera’s aperture or image editing, to visualise the “jump” from “global” to “local” climate change events. But scaling takes place not just for (re)presentation purposes, it is also used in many areas of research, technology, industry and the economy. For example, researchers had to conduct countless measurements and scaling experiments to establish that carbon combined with oxygen (CO2) significantly affects the climate on our planet (Weart 2008). CO2, however, is a colourless gas that is completely invisible to the human eye. So an extensive and closely networked group of people with advanced knowhow and instruments, who spend decades carrying out extensive and high-precision measurements in the Earth’s atmosphere (World Meteorological Organization 2022), is needed before we can finally be presented with the “jump” from red-coloured map of the world to a flooded area.

The fact that we now perceive these “jumps” as “natural” shows how strongly we have already learned scaling in a cultural context. We know that we learn in a particularly sustainable way through practical experience; in the case of scaling, for example, we do this when we use digital maps. With our fingertips, we can “zoom” from a high-resolution view of the entire globe to that of a specific locale – an inhabited house or a street. Here too, the enabling technology and knowledge behind this remain invisible to the human eye, just like gas concentrations in the atmosphere. So for all its usefulness in everyday life, this mode of scaling also has its downsides (Latour 2017a; Schneider und Walsh 2019; Tsing 2012). This is
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because when quickly jumping from global to local events, significant gaps occur in our understanding of the relationship between complex phenomena, such as the consequences of climate change. What is particularly problematic in today’s media landscape is that we rarely have a second chance to fill these gaps – especially when inconvenient changes in behaviour are called for. Climate change is about something far-reaching, namely a continual change in our living conditions on Earth and our still undefined way of dealing with these changes. To increase our knowledge and adapt our behaviour accordingly, more cautious and less erratic communication strategies are urgently needed.

INSIGHT 1:

In climate change communication, “jumps” occur when scaling techniques are used to move too quickly from one dimension to another. This creates avoidable gaps in knowledge and understanding.

Climate research and local climate justice: Climate change goes to court?

The scientific frame of reference for climate change communication, just like climate change itself, is evolving continuously and new research methods are emerging. One example is the still nascent attribution research, co-developed by physicist and climatologist Friederike Otto and her team. This method is used to find out how severe weather events, such as flooding, prolonged drought and heatwaves, are linked to climate change. For example, simulations show how weather conditions would have evolved with and without human-induced climate change (Cho 2021). Such experiments can provide concrete information about whether an extreme weather event has developed as a result of man-made climate change or whether it would have occurred in this extreme form even without industrial intervention by humans. This reduces gaps in knowledge about weather and climate that have often triggered speculation, conflicting opinions and climate change scepticism, and it also generates practical knowledge for early warning systems at the local level (Otto 2019).

Just how relevant attribution research can become is demonstrated when victims of local climate change-related weather extremes take legal action against the contributors to climate change, such as corporations or states. These usually justified individual cases often have to be dropped because the relationship between climate change and the effects of climate change cannot be proven (Boyd et al. 2021). New methods of provid-
Communicating climate change: How do we research and communicate locally-globally?

The scientific evidence about the climate could rectify this situation and are also relevant in the wider context of constitutional amendments. The fundamental liberties of young and future generations are now being linked to compliance with climate targets. If the UN Human Rights Charter were adapted accordingly, people in regions affected particularly severely by climate change could claim compensation for crop failures, floods and fires on the basis of the Declaration of Human Rights (Chapman and Ahmed 2021).

These moves to achieve a more climate-friendly world are directly related to the 2C target of international climate policy. In climate change communication, however, it should not be forgotten that in “hot spot areas”, where those especially vulnerable to hunger, floods, droughts and poverty are present, temperature increases far higher than 2°C are already everyday reality (De Souza et al. 2015). The relationship between climate science and fundamental rights in any case shows that communication is no longer just about climate facts, but about transparent and continuous communication about how these facts are inscribed in legally binding norms. Linking science and legal norms will be one of the biggest challenges for climate change communication in democratically governed countries and alliances in the future.

**INSIGHT 2:**

Intensive scientific research is being carried out into the impacts of climate change, and these research results are being discussed in court as evidence. Given that climate change is increasingly becoming a human rights issue, understanding the relationship between climate facts and rights issues should be promoted in democratic states.

**Communicating climate change as a temporal phenomenon**

Global climate change and its local causes and effects have so far been addressed in this paper as spatial phenomena. In this last section, I make the case that climate change should be understood not as a spatial but as a temporal phenomenon. The temporal dimension of climate change is sometimes more difficult to communicate than the spatial dimension. Why is this so? Before the Earth’s climate became suitable for human habitation, billions of years passed. The ongoing destruction of this climate by the industrial emission of gases, however, has only been happening for a few centuries. This is a time ratio that is difficult to grasp: billions of years of geological history versus a few hundred years of industrial history (T. Lenton and Watson 2011). Time plays an even more important role in climate change communication when climate targets, such as mitigation plans, have to be
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Concrete years can serve as targets for emission reduction plans, and the media can use years as headlines to attract attention. But, when it comes to actually communicating knowledge about climate change, they help only to a limited extent. What is more important for the communication of knowledge about climate change are linguistic formulations for temporal changes, accelerations and speeds, and for the entire geological timeframe in relation to man-made influence. To tackle this extremely complex linguistic task, social theorist Barbara Adam, who specialises in time analyses, recently presented an orientation concept for climate change communication that is not limited to points in time, such as years (Bødker and Morris 2021: xv). Instead, Adam suggests relating time in the sense of temporality directly to people’s subjective life and experience processes. As frightening as they may be, climate change phenomena can be understood as a process of ageing and decay or also of development and emergence according to the human processes we are familiar with and as a result they may seem

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1 “Tipping elements are large-scale components of the Earth system, which are characterized by a threshold behavior. When relevant aspects of the climate approach a threshold, these components can be tipped into a qualitatively different state by small external perturbations. To compare them with the human body, tipping elements could be described as organs which drastically alter or stop functioning normally if certain requirements, such as oxygen supply, are not met. The threshold behavior is often based on self-reinforcing processes which, once tipped, can continue without further forcing. It is thus possible that a component of the Earth system remains ‘tipped’, even if the background climate falls back below the threshold.” [https://www.pik-potsdam.de/en/output/infodesk/tipping-elements/kippelemente](https://www.pik-potsdam.de/en/output/infodesk/tipping-elements/kippelemente)
less abstract. Adam also argues that we should invent more metaphors for the speeds within which climate change is developing. Speed can mean both the increase and the reduction of acceleration. The analogy between climate change and a car driving at full speed towards a wall with us on board is an aphoristic example that has now become accepted. This image reflects the inertia and hesitancy of mitigation measures compared to the momentum of climate change, but it provides little information about the consequences of exceeding the tipping points. That would mean more cars that could ram into us sideways at any time. The faster these cars go, the more disastrous the accidents.

**INSIGHT 3:**

A temporal understanding of climate change has important potential for communication. Instead of being linked only to abstract years, climate change phenomena should be explained in a language that is closer to people’s everyday experiences.

**FURTHER INFORMATION:**

Under [www.re-imagine-climate.com](http://www.re-imagine-climate.com) you will find examples of and discussions about climate change communication from the perspectives of anthropology, medicine, rhetoric, philosophy of science, complexity research, geography, literary science and phenomenology in the form of video interviews and keynote texts in English.
References


Climate crisis face to face with digital tools: A gamified approach by Station Europe

BY ISABELA NEAGUE

About the author

Isabela Neague is a PR specialist, trainer and young entrepreneur, passionate about social work and communication for the social good. She is also the national coordinator of Understanding Europe Romania and a peer educator.

About Station Europe

Station Europe is a tech-savvy NGO that supports initiators, hence those who are protagonists on the stage of social life and want to be ambassadors for good in the communities they belong to. Station Europe is the organisation that hosts the Understanding Europe network in Romania.

A burning question of many Romanian youth workers nowadays is: what is the climate crisis according to young people aged 10 to 16?

Although the subject of environmental issues has attracted the attention of the entire planet in recent years, many organisations, schools and experts operating in non-formal education in Romania still struggle to find practical and creative ways to incorporate it into their work. This is not out of bad intentions but mainly because several technical concepts are hard to convey to young people as they are complex and key topics such as environmental issues, the Green Deal or even climate change are hard to translate.

If the issue continues to be detached, as if from an encyclopaedia accessible only to climate specialists, young people might end up disengaged. The outcome? If Romanian young people do not resonate entirely with public debate, they show a tendency to distance themselves from notions that are pretty difficult to comprehend.

Nevertheless, there is potential for action from many sides such as young people, teachers, and experts, who want to build connecting bridges and a common ground of free expression. Young people have a new way of visualising things and experiences: they are into attractive design, eye-catching images, short immersive videos and catchy trends on platforms such as Instagram and TikTok.

Social Media. This hybrid space simulates not only the agora of the ancient Greeks but the public arena and almost incessant manifestation of ideas. In a medium that has become so fluid, those who have learned how to use digital tools can easily form an opinion or start massive social movements. Consequently, the choice is up to the user - whether to use digital tools to spread hate messages or to share ideas about possible good campaigns that address, for example, the subject of pollution or global warming.
Social Media for the Social Good

It is evident that all generations face difficulties when it comes to fully understanding climate change. Still, our focus here is to determine educational practices that connect young people with environmental issues. Station Europe’s previous experience in projects shows that, in order to succeed with Generation Z, especially with teenagers in high school from the age of 10 to 16, it is necessary to start speaking their language, using concepts that are translatable to their lived experiences.

Moreover, once you know their comfort zone on social media, the next step would be to use familiar frames, which they are used to seeing every time they scroll or browse. This is what Station Europe does: we develop programs that integrate a critical direction and make positive use of digital tools in creative campaigns that can emphasise relevant topics.

Thus, Station Europe’s mission is to give younger generations the power to bring useful ideas and initiatives to life and to create stories that celebrate diversity and inspire communities to act for a sustainable future.

As part of the Understanding Europe network, Station Europe uses social media to grow a young community of ambassadors who circulate relevant messages through their social accounts and spread positivity in the digital space. Simply put, young people all over Romania are learning while also having fun using social media.

CASE STUDY

Good practices: Augmented Reality filters to strengthen the care for nature

In 2021, the Station Europe team developed several creative projects, among them workshops aimed to introduce popular viral digital tools to kids and youngsters, aged 10 to 16. One example of this is Instagram filters. Usually used for entertainment, these filters are often considered superficial. But beyond the famous puppy ears, we need to think more deeply. Undoubtedly, there are extra layers to be explored. How can we use these filters to design relevant campaigns and publicly talk about serious topics?

This is how the successful workshop, How to create AR filters on climate and environmental issues, was born. Using the organisation’s Discord channel, twenty young people learned how to create their AR filters using the Spark AR app. Furthermore, in teams, they thought about some prototype filters to address current climate issues. For two hours, they met where they usually gather anyway: on social platforms. In this case, on Discord, their favourite gaming place. While using the same tools as usual, they were challenged to a different game, drawing attention to very important topics.
WHICH IDEAS WERE PRESENTED?

- Team 1 proposed a **Quiz-Type Instagram Filter** option, in which young people answer three simple questions such as: what is the most polluted place in Romania? Name three endangered glaciers. What are the major consequences of global warming, according to you?

- Team 2 came up with a different approach, using **Simulated Trees** to emphasise the problem of deforestation. Every time someone uses this filter they will see a simulated tree, highlighting the issue and how it affects the climate.

- Team 3 imagined the most practical option - **An Earth Day Filter** that draws a tattoo of the tree of life and the text Save it now! on the user’s face.
Throughout the feedback session, there were many raised hands. One of the kids involved in the creation of the AR filters was so impressed with the game that he said: “I think I understand how to handle the technical side of Instagram now. During this workshop, I have learnt how to create a filter and that this instrument can be used to teach others about climate change.”

Another said she will start playing more with Spark AR and “in the future develop a business with courses teaching kids how to address burning topics through gamification.”

After this successful experiment, the Station Europe team integrated a brand new hub into the project’s strategy: **Reality Labs**, a series of games that use digital resources to raise awareness about social and educational issues. Among them, the climate crisis increasingly plays an important role.

### CONCLUSIONS TO TAKE FURTHER

- **To convey complicated information to young people, it is important to work with them where they feel comfortable, in the digital environment, using tools that hold their attention.**
- **The benefits of addressing critical topics on social media platforms are obvious and these should be explored in youth work.**
- **Accordingly, complex issues can be translated through creativity and openness to create bridges that break down barriers and enhance connection between generations.**
CLIMATE CITIZENSHIP
EDUCATION AND
CLIMATE JUSTICE
About the authors

Magid Magid is an activist and the founder and director of Union of Justice, a European climate justice organisation. He is the author of The Art of Disruption: A Manifesto for Real Change. He was formerly a member of the European Parliament and Mayor of Sheffield.

Dr Joshua Forstenzer is a senior lecturer in Philosophy at the University of Sheffield and the co-director of the Centre for Engaged Philosophy. He is the author of Deweyan Experimentalism and the Problem of Method in Political Philosophy. He sits on the advisory board of, and has been a philosopher-in-residence at, Union of Justice.

In recent years, young people have been at the forefront of the fight against the climate crisis. Although our young leaders are undoubtedly heroic, it should not come as a surprise that many youths have taken on this historic responsibility. This is because young people have, generation after generation, often seen further than the adult population on social, political and environmental issues. It is also because this current generation of young people know that the entirety of their lives will be against the backdrop of increasing environmental devastation should we fail to meaningfully address the climate crisis.

We say ‘we’ since we are all being called to action. But let there be no doubt, the central question at the heart of any climate crisis educational project must be: “Who among us has the power to effectively and justly address the climate crisis?”

To this, we believe that the only credible answer at this stage has to be ‘all of us’. Or to put it more simply, we must abandon all hope that enlightened elites will take the necessary steps without pervasive and overwhelming public pressure. If the Fridays for the Future, Extinction Rebellion, Insulate Britain, and Just Stop Oil have shown anything so far, it is that people power, when deployed strategically and with determination, is the singular greatest resource to tackle the climate crisis. This, however, is not an easy path. And it does not mean that we should ignore the role of formal politics and more traditional groups in civil society – far from it.

Yet, we must be under no illusion: no individual leader, no political party, no successful faction within a party, no NGO, no genius scientist, no lucrative investment strategy can ‘save’ us now. However well-intentioned and effective in their own spheres each of these strategic elements might be, they cannot come together as an integrated ‘plan of action’ without everyday citizens seeing themselves as the prime actors, as the glue.

Let us be clear: individual action won’t do the trick either. Too often when we are asked the crucial question “what can I do?”, people expect sage advice about personal carbon footprint mitigation strategies (like flying less or not at all, eating less meat and dairy or going vegan, having fewer children), when in fact what we believe to be most effective is to work towards building a sense of intelligent civic togetherness.
Why? Because, as the impressive Just Stop Oil activist, Miranda Whelehan, reminds us,

"climate justice will not come about as a result of merely private actions. What we need is complex, highly strategic, well-coordinated social action involving, as the slogan goes ‘one billion climate activists’ in a struggle for a liveable and just future. We need this now."

Yet, since we don’t have that now, we need it tomorrow. And if we can’t get that tomorrow, we will need it the day after, and the day after, and so on.

We say ‘address’ because we cannot solve the climate crisis. The environmental, socio-economic, and political consequences of a rapidly warming climate are already with us – from increased forest fires and more frequent and severe droughts and floods, to more intense hurricanes and tropical storms, to receding ice-shelves, failing crops, and increasing violent conflicts. The warming climate cannot be stopped per se, we can only hope to contain it. And contain it, we must. The good news is that climate scientists believe that if we make rapid reductions in greenhouse gas emissions, the global temperature will eventually normalise.

We say ‘crisis’ because it is a climate crisis – or better yet, as Greta Thunberg puts it, it is a ‘climate emergency’. Time is short. Every year counts. Every ton of greenhouse gases emitted counts. The clock is ticking and we need to learn to transform our society with the speed of war time mobilisation, but without coordination coming from the state itself.

We talk of a ‘just’ transition because climate action that fails to address past, present and future injustices is doomed from the start. It is a common place to state that climate justice is about present actors owing a liveable earth to future generations. So much is undoubtedly true. But there are also two other dimensions to climate justice: historic injustices and present day inequalities. As the philosopher Elizabeth Cripps puts it in her wonderful book What Climate Justice Means and Why We Should Care:

"Climate change is about privilege. Causing it, and not (yet) worrying about it. [...] Climate harm is about lack of privilege. It hurts those already disadvantaged worst of all."

In a recent academic article, Bruckner, Hubacek, Shan, Zhong and Feng show that the world’s wealthiest ten percent are responsible for an estimated 47 percent of all global CO2 emissions. Furthermore, they demonstrate that to facilitate poverty alleviation in the very poorest countries, richer nations must begin to make significant reductions in greenhouse gas emissions now.
Climate crisis education

Although climate science continues to be vital to understand the unfolding consequences of a warming world, we contend that it is imperative that climate citizenship education goes well beyond the scientific framework. In fact, we believe that a responsible curriculum for citizenship education in the face of the climate catastrophe will take the connection between privilege and climate change as the product of political and economic history as its central pedagogic frame.

The present climate crisis is the endpoint of a process that began in earnest during the period of European colonisation, which led to capital accumulation, and subsequent industrialisation. However, what 18th and 19th century philosophers called ‘progress’ came at the cost of subjugation and genocide of large indigenous populations in settled territories in the Americas, the enslavement and barbaric treatment of millions of Africans, the domination of ‘colonial subjects’ across the world and the ransacking of their natural resources, as well as the immiserating of working classes in the metropolitan centres of imperial powers. The effects of these events are still with us. In particular, indigenous peoples all over the world suffer from systemic efforts to push them off of their ancestral lands, reduce their remaining rights, and a chronic disregard for their safety and health in the face of predictable environmental degradation. We thus cannot appreciate the real toll of the fossil-fuel industry on populations if we are not looking at it through the combined lenses of environmental devastation, gender disparities, racial justice, economic inequality, and public health.

Developing a rich curriculum that introduces these complexities to young people within the context of citizenship education might seem like a tall order yet that is precisely what the UN Framework Convention on Climate Change, the Paris Agreement and Action for Climate Empowerment agenda all call on governments to do by educating, empowering and engaging citizens, communities, organisations on policies and actions relating to climate change. However, the broad outline, content, and pedagogic goals of a climate crisis curriculum have not yet been mapped out in much detail by academics and/or practitioners. There are a great number of specific lesson plans on the topic, but not many integrated curriculums. This is why we have launched our own partnership to begin to address this gap.

Sketching a curriculum for citizenship education in the face of the climate crisis?

In November 2020, Niccolò Milanese, founding director of European Alternatives, a civil society organisation promoting democracy, equality and culture beyond the nation state, remarked: “The Covid-19 pandemic has also been a moment to reflect on the role of education generally, and citizenship education more specifically. It draws attention to the vital importance of several capacities of citizens in democracies, which good-quality citizenship education seeks to promote: governments have called on citizens to understand how their own actions can have implications for others and
have relied on citizens to deal with uncertainty, to understand the social pertinence of scientific information and to think critically, so as to distinguish the reliable from the misinformation.”

We believe that the contents of a climate crisis curriculum must be curated on the basis of its ability to develop the civic competencies that are required to confront all crises. As in the case of Covid-19, the climate crisis is unfolding within high levels of complexity and a good deal of uncertainty. Citizens cannot expect the formal authorities to know what needs to be done within any given context. Worse still, authorities may sometimes be counterproductive, either because they do not recognise the salient facts, do not adhere to the recommendations of the scientific community, or because they have not thought critically enough about how their selected course of action will impact diverse communities. In other words, citizenship education in times of crisis requires fostering a deep sense of civic agency, a well-grounded sense of epistemic authority (that is to say, an honest assessment of one’s capabilities to know and understand relevant information), and the experience of ‘togetherness’.

There are many pedagogic tools that foster these qualities. Yet, one impressive pedagogic intervention that we have been using for some years now is the practice of Philosophy for Children or Philosophy in the Community (P4C). This involves sharing a social artefact (this can be a short video, a photo, a short piece of text, or a carefully selected object) with a group of 10 to 15 students and then carefully facilitating the process of question making, question selecting, and of critical engagement with the question

### TO THIS END, EDUCATIONAL INTERVENTIONS SHOULD AIM TO DEVELOP THE FOLLOWING SEVEN KEY COMPETENCIES:

1. Critical thinking
2. Scientific literacy
3. Collective decision-making
4. Political and economic history
5. Campaigning and influencing
6. Leadership and political literacy
7. Emotional literacy
at hand. To really stress the practical upshot of this discussion, one can add a step where the group is asked to decide upon a course of action on the basis of their discussion. When facilitators do a good job of this (largely by taking up very little space), the group of students experience themselves to be agents of thought and change within their own communities. Another model that looks quite promising is to put on a day-long mock Climate Crisis citizens assembly where the students engage in structured deliberations about how to tackle the climate crisis. In fact, this type of activity is most effective when the group’s resolutions can potentially govern an institution in which its members are participants. So one would ideally spend a few days deliberating as a group about what new climate policies one’s school ought to adopt and then submit these to the School Director.

Ultimately, critics may well complain that education is a slow process and that the climate crisis is urgent and that, therefore, we ought not to spend much energy thinking about climate citizenship education. Our response is twofold: (1) education is one of the most important ways to tackle the climate crisis, but by no means the only or even the most important one; (2) we believe that it is a mistake to think of the climate crisis as a cliff edge, where all is causally determined by actions taken prior to a given point in time.

In effect, the climate crisis will be with us for quite some time no matter what we do now and learning to address it with the right level of intelligent engagement and civic fortitude will be of benefit to citizens for the coming decades. Minimally, we believe that an effective climate crisis curriculum would serve to entrench the democratic values and practices of collective intelligence, participation, equal consideration, deliberation and accountability. These, we contend, will always be precious.
Climate justice is trending – at least mentioning climate justice is. In most climate change discussions nowadays, some sort of justice consideration is referred to, be it for instance in scholarly debates, in the Paris Agreement of 2015, in the latest reports of the IPCC (Intergovernmental Panel on Climate Change), in speeches and interviews from politicians like the current German foreign minister Annalena Baerbock or non-governmental organisations and movements like Fridays For Futures. But what does climate justice mean anyway and how can it best be addressed in civic education?

Let me start by giving you some background information on how I developed my two cents on the topic: I grew up in a working-class family in Saxony – thus, justice issues were a matter I was primed to think about. In 2016, I joined the Schwarzkopf Foundation as a peer trainer and delivered workshops in Saxony, Berlin and later in North Rhine-Westphalia. Along the way, I became more interested in environmental degradation and climate change, trying to learn about matters such as: what are the necessary policies to limit global warming? How can treaties be created that almost 200 countries are willing to agree to? Which actors need to be involved in decision-making? How can these decisions be implemented and adapted to local needs? Consequently, I tried to gain more knowledge on these topics. During my studies in political science, I became active in a local environmental organisation and started to work part-time for a think tank on international cooperation, specifically researching a just implementation of the Agenda 2030 and the Paris Agreement. So, I guess I can fairly say that climate change and justice considerations have kept me thinking for some time already.

What follows are neither solutions for how to best accomplish global climate justice nor precise recommendations for dealing with the topic in education. Rather, it is a collection of (my) general impressions to offer some food for thought.

**Contextualising global climate (in)justice and its relevance for civic education**

Let us start with what I refer to when I talk about climate justice: although everyone is affected by climate change in some way or the other, the level of
vulnerability, capacity to adapt and mitigate against climate change as well as the historic, present and future responsibility for climate change varies greatly. Questions as to who could and should act in a certain manner to limit the adverse consequences of human-caused climate change seem to be omnipresent. In addition, climate injustices also persist in the ways actors benefit from the movement towards a socioecological, just transition. Take for instance states that already have the capacities to transform their economies and switch from fossil fuels to renewable energies. Some beneficial side-effects of this transformation can be the creation of new job opportunities, securing the supply of energy and reducing air pollution. Often, these injustices go hand in hand with already existing structural disadvantages originating from colonialism, the global economic system, but also aspects such as gender or race, and are further enforced by crises like the COVID-19 pandemic. Thus, opportunities for actions against climate change are deeply ingrained in matters of justice, equity, fairness and the so-called Common But Differentiated Responsibilities and Respective Capabilities Principle (CBDR-RC). Commonly, justice dimensions in environmental and climate change politics span aspects of procedural, distributional and recognitional justice. Moreover, these three dimensions are not only examined within the currently living generations but also in light of all future generations.¹

So, where does civic education come into the picture? Climate injustices are often embedded in structures that cannot be overcome easily. I believe that to sustainably change these structures in the long term, education plays a key role. As a first step, awareness, information and recognition of global climate injustices needs to be spread more widely in order to – in a second step – strengthen substantial actions towards increasing climate justice. Individual actions such as changing consumption patterns, everyday talks with family and friends, voting choices, joining demonstrations, NGOs or political parties may ultimately lead to implications on the local, national and eventually global level. For me, climate justice education is a crucial arena for accelerating such a bottom-up process.

¹ See references.
Barriers and challenges to climate justice education

Understanding the science side of climate change

Understanding and communicating the interlinking causes, regionally diverse and cascading consequences as well as suspected solutions to climate change is complex in itself. Plus, although general ramifications of climate change such as more severe and frequent floods, droughts, heatwaves, rising sea levels and melting glaciers are broadly agreed upon by scientists, there are still some uncertainties when it comes to determining the precise impacts of climate change. Moreover, only some consequences of climate change are already visible today. Thus, the climate challenge seems to be further away and harder to grasp than crises like the COVID-19 pandemic, the so-called “refugee crisis” of 2015 or the war in Ukraine.

The difficulty of forming an opinion on an ethical issue per se and justice matters specifically

To conceive an opinion about ethical matters is a challenging task. After all, to arrive at a thought through opinion requires resources like background knowledge, sufficient time, and skills like critical thinking that first need to be acquired. It presupposes the ability to review one’s own norms, values and positionality as well as role vis-à-vis others on a global scale and the choices we take on a daily basis. Thus, establishing and arguing for what we believe to be just and comparing it with the perception of others is a tough task.

Combining ethical considerations with natural science issues on a regional and time-wise overarching scale

To understand the science of climate change and to consider ethical issues is already complicated in itself. But the combination of both aspects in climate justice education seems to be full of obstacles and hardly feasible at all. Climate justice implications are just too abstract and far away for most pupils and educators in their daily lives. It is already difficult enough to think about justice implications in your own region in the near future. But comprehending global climate injustices on an arch from the past to the future and linking them to political, social and economic systems is even more out of reach.
Not feeling overwhelmed and getting into action

Being faced with all the facts of climate change and its consequences on justice, it is hard to shrug off the feeling of mental overload, and perhaps also anger towards the economic and political system that produces and reinforces these inequalities. And even if you know that you are part of the “Imperial Mode of Living” and that it is your responsibility to act for climate justice, the question is how to proceed with that knowledge. It is so much easier and more convenient to just go on with your own life and your own problems and not think about all of it. Ultimately, what difference do the actions of an individual make? You cannot trace the causalities of individual climate actions like a vegan-friendly diet or buying locally and their consequences for global justice so easily. You have to include a diverse set of intersecting variables to explain the links. But breaking these chains of reasoning down into easily comprehensible units is important, especially in the educational context. In addition, the prophecy of a green and sustainable lifestyle might be misleading at times as well. Just think about the turn towards e-mobility, the mining of lithium in Argentina, Bolivia and Chile and its ecologically harmful consequences for local populations.

Hence, it is a struggle for educators to convey in an easy manner the necessary information regarding climate change and climate justice and spur climate just action.

The Imperial Mode of Living

According to the political and social scientists Ulrich Brand and Markus Wissen (2017: 152-153), the ecological crisis is mainly influenced by the logic of the world economic system and the Western production model: The capitalist system leads to uneven development across borders and time. Another crucial factor is that this system is further maintained – often normalised and unconsciously reproduced – through people’s (=our) daily activities. More precisely, the concept “implies that people’s everyday practices, including individual and societal orientations, as well as identities, rely heavily on: (i) the unlimited appropriation of resources; (ii) a disproportionate claim to global and local ecosystems and sinks; and (iii) cheap labour from elsewhere. This availability of commodities is organised through the world market, backed by military force and/or the asymmetric relations of forces as they have been inscribed in international institutions. The concrete production conditions of the consumed commodities, which are essential to particular modes of living, are usually invisible” (Brand and Wissen 2017: 152-153). Consequently, the authors conclude that “[t]he ecological crisis is thus also a crisis of the global North’s mode of living”.

Reflections on the challenges of European civic education on climate [in]justices
POSSIBLE AVENUES FOR CLIMATE JUSTICE EDUCATION

The question remains: what type of educational programme does it take to tackle climate (in)justice? I cannot provide you with a detailed list of proven recommendations but here are some aspects I would like to suggest for educators to keep in mind:

- Try to include precise examples of climate injustices to overcome the abstractness of the topic. Perhaps start with the local level and then slowly work your way up towards the global level.

- Just as with the regional level, it is advisable to consider past, present and future injustices separately. To reflect on and to understand climate justice takes time.

- Try to look for multimedia content of young people from different countries expressing their views on climate change injustices. During the pandemic, there were so many conferences, workshops and lectures taking place online, many of which were recorded. To listen to and see someone actually suffering from climate injustices is eye-opening every single time.

- Together with pupils, check movements and organisations like the Indigenous Environmental Network, declarations like the Cochabamba People’s Agreement, platforms such as Climate Justice Now, actors most affected by climate injustices like Small Island Development States or foundations working on the topic of climate justice like the Mary Robinson Foundation and how they frame justice and what demands they put forward.

- Exchange ideas, case examples, media inputs, knowledge and best practices with peers.

- Face up to your own lack of knowledge and your own presumably conflicting positionality in the world we live in and be open about it. It is a joint learning process.

- And finally, do not abandon the idea of addressing global climate justice just because it is a complex topic and you do not know all the causalities yourself.
Conclusion and personal hopes

It is my wish that although it is a complicated topic, climate justice will be increasingly acknowledged in education and that educators and pupils alike do not get demotivated because it seems to be too abstract, too complex and too irrelevant for day-to-day life.

Ultimately, we need to be realistic too: we live in a non-ideal world and even with the best climate change education, we will most likely not succeed in a global socioeconomic just transformation. Much more is needed for that. Too many conflicting actors, interests and (structural) processes set high boundaries. But we should not close our eyes and leave it to the political and economic systems to take action. What we can and must do to bring about climate justice is to spread awareness and motivate people to take action – be it in terms of consumption patterns, likes on Instagram or talks with family members – to build a broad societal movement for transformation which will also put pressure on politics and businesses. And education plays a crucial role in that.

References


About Patu Ndango Fen

Patu Ndango Fen is a social entrepreneur, Zerowaste activist and circular economy promoter. After studies in environmental science, international relations, and environmental engineering, she founded CLS Ventures, a creative waste management company based in Yaoundé, as well as CLSV Foundation, a non-profit organisation championing the fight against climate change and environmental challenges. She is a Chevening scholar, an Obama Africa Leader, a Tony Elumelu Entrepreneur and a One Young World Ambassador.

How did you start to get involved in the fight against the climate crisis? What was your initial motivation?

My motivation was always to look for ways in which I could be useful to society. Growing up, I used to dream of becoming a doctor because I believed that this was the only profession in which I could help save lives. Due to a misfortune which prevented me from taking the medical exams, I found myself by accident in the Environmental Science programme. I realised that there was another way to save lives: saving the planet as a whole. I started observing around me the different environmental challenges that are specific to Cameroon such as waste management, as well as challenges that are common globally. In 2016, I started a company called Closed Loop System Ventures, which gives a second life to items considered waste by other people. We try to valorise different types of waste materials and bring them back into the economic system. Things that we recycle are for instance waste tyres that we transform into eco-friendly furniture or textile waste that we then turn into flowerpots.

What was the next step in your journey?

With time I realised that we need to do more than just recycle waste. We need to engage more people and we need to raise awareness. We also need to stimulate a change of habit and a change of culture that resolves these waste challenges. So, I decided to create a non-profit part of the company in 2017. Through this foundation, we mobilise different stake holders, especially small business initiatives, to get involved in the fight against climate change. We have carried out many activities such as clean-up campaigns. For instance, we regularly go to schools and plant trees with children, so that they grow into more climate conscious future leaders.
What would you say are the biggest challenges in communicating the climate crisis and motivating people to take action? How do you tackle those challenges?

One of the major challenges is the language barrier. You have to ask yourself “Who am I talking to?” And depending on the kind of people that you have in front of you, you have to find the right ways to communicate. Otherwise, you will just be using words that are not understood in the first place. Let us take for example ‘Circular Economy’.

Not everybody knows what this is, but it has been identified as a major tool that can be used to fight climate change. Depending on whether you talk to school children or business executives, you have to change your communication and the intensity of what you want to pass along. Also, we have a wider team that produces engaging and creative multimedia content, which helps a lot.

What concrete advice do you have for young educators who want to discuss the climate crisis in the classroom or in other group settings?

The advice that I can give is to be more practical: communicate by words, images, videos and be hands-on. Take people to the field, so that they get to touch this problem, feel this problem, see this problem – instead of just having some pictures presented to them. With Game Changers, an initiative I am currently leading in Cameroon, we mobilise people and take them to certain areas where they get to see these challenges first hand, for instance at an open waste site in the middle of a residential area. We also do this with stakeholders who have the possibility of taking action and influencing policies.

What is climate justice for you? What is the role of young people in achieving it?

Climate justice is the need to put everybody at the same level. To ensure that some people are not left behind when we are trying to look for solutions to the climate crisis. And to address the fact that some people are more exposed to the negative impacts of climate change, maybe because of gender, because of age or because of social class. Climate justice seeks to enable everyone to adapt to the negative impacts of climate change or to be able to mitigate them. Let us take for example the increasing temperatures in certain parts of the world due to climate change; you will realise that people who have money would not really feel the impact because they get into their cars which have an AC, into their homes and offices with an AC. So, they have very limited contact with the heat wave, contrary to someone who cannot even get a single square meal in a day. How would that person afford an AC? These are some of the injustices that need to be addressed.

How do you see the role of Europe and of young Europeans in this?

The lifestyle in Europe contributes to the climate crisis and to climate injustice. Developed countries are actually at the centre of all of these challenges. We all know that developing countries, and Africa in particular, contribute the least to the greenhouse gases that are emitted into the atmosphere, which is the source of this crisis. At the same time, they are more exposed to the consequences. And this all boils down to the issue of resources. Developed countries have the wealth and the infrastructure to make their life better.

Looking at these injustices, young people in Europe have a major role to play. By virtue of the fact that they are young today, they are more at risk of experiencing the harsher impacts of climate change. If we do not take action over the next ten, twenty years, the outcome will be catastrophic. I think there really is a need for radical action. Last year, we went to COP26 (United Nations Climate Change Conference). This year we are going for COP27, next year we will go for COP28. So, where do we stop? These kind of climate events should not be about the talking. We need to move from that talking to action. Countries need to go back and really put in place the pledges that they make during these global climate events.
How do you define yourself in the work you do and how do you balance your different roles?

When I am asked to give a brief introduction into who I am or what I do, the simplest way is to say “I am a zero waste activist, a circular economy promoter, a climate activist and a social entrepreneur”. All these things are related: My entrepreneurship journey is not the usual thing of just producing things for the sake of making some money. It is a way of raising awareness, of changing mindset and of making people see things differently. This is very important because if you are just manufacturing an eco-friendly product and you put it on the market, people might not know why they should choose this product over a conventional one. But if I speak at events and raise awareness, people get interested.

It sounds like the educational sector could learn a lot from social entrepreneurs.

Yes, definitely! In Cameroon, for instance, the educational system is not developed in a way that pushes young people to be creative and to want to transform challenges into opportunities. Many people are just interested in going to school, finishing and maybe going for a government-related job. This is what gives people security. They are comfortable in that because they know that at the end of the month, they have a salary.

There are only a few that go to school thinking about what they themselves can do, can create and initiate to provide a job opportunity for themselves, and for other youth and how they can contribute to resolving societal challenges like climate change. Social entrepreneurship however inspires young people to be solution providers. Conventional educational providers should think about how they can redesign their materials in such a way that it brings out this creativity in young people.

In your experience, what kind of support do young educators need in the work they are doing? Who can and should provide this support?

One thing that young educators need is to find the right partnerships. They might not have the right skills to develop for instance all parts of a curriculum, but the right partners are going to make things easier. You do not need to re-invent things, you can just leverage what other people have already done. For instance, as an activist, you could partner up with social entrepreneurs in your field who bring in the practicality, a more hands-on approach. What I also advocate for is to take part in international events. It is a way of bringing people with similar or complimentary visions together.
Understanding Europe is an educational network by and for young people committed to civic participation and to a democratic and open-minded Europe. At the centre of the project are young peers aged between 16 and 27. Active in youth-led organisations in thirteen European countries, they form the project’s European network and shape it on many levels and in different capacities. The project creates a safe space for learning and collaboration, offering young people opportunities to explore, get to know themselves and better understand other world views.

The peers facilitate workshops on politics, media and democratic participation in schools and other educational settings in their countries. The formats are based on the approach of Peer Education, which aims to strengthen participation and self-determination. The peers act as role models and mediators at eye level with young people in and out of classrooms.

Peers are prepared for their work in classrooms through a qualification programme. Following the concept of democratic citizenship education, it provides knowledge and skills to enable young people to actively participate in society. Engaging with inclusive, diversity-sensitive and racism-critical approaches plays a central role.

As part of a fellowship programme, young educators, supported by experts, develop new workshop formats for the network. The project’s educational materials and publications are freely available and are aimed at peer trainers, teachers and multipliers in school and in non-formal education.

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