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Climate Crisis and Youth

Vocal Representatives of the Climate Discourse

Orsolya Kovács-Magosi and Philip Hammond

Across the world, more than four million people marched on the streets on 20 September 2020 to protest against climate inaction. The international "climate strike" organized by Fridays for Future (FFF) was the world's biggest ever climate demonstration. On seven continents, over 163 countries were involved, and in Germany alone, more than 1.4 million people went out on to the streets to protest (Hurrelman & Albrecht, 2021). The September 2019 climate protest (also called the Global Week for Future) was a series of international school strikes which also indicated that the majority of protesters were school children and students aged 14-20. These examples illustrate a new era of environmental movements, in which online communication has the strongest potential to mobilize crowds. The school strikes were organized and popularized on digital media platforms – primarily Facebook, Twitter and Instagram – where billions of people saw call-to-action messages which immediately went viral and global.

Climate change is widely regarded as the biggest challenge faced by humanity. The UN's Intergovernmental Panel on Climate Change (IPCC), which is considered to be the most reliable source in this regard, warns that if carbon emissions are not reduced within a short time period, we will face multiple unavoidable climate hazards in just a few years (IPCC, 2022). According to European Union's Copernicus Climate Change Service (C3S), in 2022 the world experienced its fifth-warmest year on record (C3S, 2023). Climate science is settled in the sense that climate change is now widely accepted as a real phenomenon, and the number of so-called "climate deniers" has declined, although ongoing discussion in the scientific community continue to debate the extent to which current climate change is human-induced. Since the second half of the last century, many organizations and networks have been established to fight climate change and other environmental problems, while world summits (such as the annual Conference of the Parties) and international treaties (for example the Kyoto Protocol in 2012 and the Paris Agreement in 2015) have proliferated. Recently, the discussion has been overshadowed by the outbreak of the Russian-Ukrainian war: media framing of climate change in general shifted in response to this critical event towards the energy crisis, still keeping this topic on the agenda but from another

perspective. General attention to the issue is also reflected in language: in the past few years several new terms have been coined with a “climate” prefix, such as “climate breakdown”, “climate refugee”, “climate anxiety” and “climate literacy”. Climate change has become a permanent element of today’s political, scientific and media discourse and it not only influences the future but already determines the present of the younger generations (whether Generation Z or Generation Alpha) who will have to come up with solutions.

The rapid spread of the “new wave environmental movements” and their mobilizing power demonstrates that the issue of climate change goes far beyond the natural sciences: it has an enormous impact on society as well. Fridays for Future is just one of a number of recently established youth-focused environmental movements which merit the attention of social researches. Yet climate change is only one of the many challenges today’s youth has to confront. They live in an age of crisis – be it pandemic, war, misinformation, economic instability or natural disasters. While Generation Z is far from homogenous – meaning that these movements only represent part of the generation – it is true that in general they have different attitudes compared to their predecessors, the Millennials. They have a very strong social commitment which is very clear and public (Hurrelman & Albrecht, 2021), and they are not afraid to voice their opinions to fight against injustice. They are growing up in a world where they are constantly bombarded with information, everything seems to be speeding up around them and they are under enormous pressure to solve upcoming problems. They have to make a difference in circumstances where they are continually encouraged to spend and consume more. It is not surprising that this all presents a huge mental burden for many young people. Seemiller & Grace (2019) describe them as a “worried and stressed out generation”, which is in line with the results of the American Psychological Association’s Stress in America Survey that focuses on the concerns of young people aged 15 to 21.[1] A very high number, 91 percent of the respondents (n=3.458), said that they had experienced at least one physical or emotional symptom due to stress during their life. Gen Zers tend to worry about world issues such as equality, safety, education and not least climate change and global warming. It therefore also follows what Reyes et al. (2021) found in their research. They proved that there is a significant relationship between climate change and mental health and that worsening environmental problems can cause “climate anxiety” and “eco anxiety” among young people.

[1] Stress in America 2022: Concerned for the Future, Beset by Inflation, American Psychological Association, October 2022, www.apa.org/news/press/releases/stress/2022/concerned-future-inflation.

Defining youth

The general image of youth has radically changed in the 21st century after the spread of new media technologies, but there is also some confusion about who belongs in the category of "youth". The tabloid press is full of Hollywood actors who cannot cope with aging, for example, and many of us will have encountered senior people who try to look like as if they are twenty years old. A cult of youth is fed by advertisers, leading brands and influencers, and it is increasingly difficult to determine who counts as "young". In social science, researchers have tried to conceptualize youth using different frameworks. Pioneers such as Mannheim (1952) and co-authors Strauss and Howe (1997) distinguished cohorts based on their similarities and differences. According to Mannheim, a generation is defined as those who are born in the same year and share a common location in the historical dimension of social processes. Strauss and Howe classified four generational stages: the "high", the "awakening", the "unraveling" and the "crisis." According to them, a generational spectrum lasts around 20–25 years, during which the social, political and economic climate is similar. Today, generational research is in its prime and "Gen Z" has become a buzzword for youth. Contemporary generational classifications vary between countries and regions, but researchers agree on broad categories. *Table 1* presents the generational classification in Hungary based on their media consumption habits in which there are statistically significant differences (Székely, 2020).

Description	Born
Veterans	1939 and earlier
Baby boomers	1940 – 1969
Generation X	1970 – 1979
Generation Y	1980 – 1993
Generation Z ("GenZ")	1994 – 2010
Generation Alpha ("GenA")	2011 – to date

Table 1: Generational classification in Hungary (Székely, 2020)

This paper focuses mainly on Generation Z, which is the most talked-about generation. They make up today's teenagers and young adults, as indicated above. However, at some points we tried to go beyond the mainstream discourse and include Generation Alpha to this study. They are the first generation to be born entirely in the twenty-first century, and at the time of writing, Gen A consists only of children under the age of 14. We expect that they will show

very similar attitudes and interests in terms of environmental questions, as many of them are already involved in environmental activism (see below on Licypriya Kangujam, for example).

It is legitimate to ask how far Mannheim's generational theory from the 1950s can still be applied today. We face global challenges including the outbreak of a pandemic, the consequences of climate change, mass migration, energy crisis and inflation, which cannot be tackled purely on a national or local level. It may therefore appear that for the first time in history a global generation is coming into existence, facing the very same problems no matter where they live. Generation Z has already been labeled in numerous ways, often reflecting these common challenges and experiences. Today's youth is sometimes called the "NetGeneration", "Zoomers", the "Covid generation" or the "Greta generation" as well as the "Climate change generation". The era in which they are growing up is dominated by serious political, economic and social issues, shaping their identity in similar ways. Moreover, their civic identities are heavily influenced by what they consume online. The online platforms they frequently use – Instagram, TikTok, Twitter, Facebook, etc. – often serve as safe places where they feel understood and accepted, and where they can relate to each other regardless of time and space. Literat et al. (2018) state that today's youth are not "adults in the making", but social agents in their own right who are already active and creative.

The more the scientific community and the media report on the consequences of climate change, the more attention is given to Generation Z. The generational approach in research has become dominant and constant with the appearance of climate activist, Greta Thunberg. *How interested is Gen Z in climate change? What do they do for the environment*? – These are just some examples of the questions researchers started to search answers for. This tendency is illustrated by a wide range of blog articles, opinion polls, and academic papers. It is important to note, though, that this association between youth and environmental protection is not new. White (2017) observes that generational approaches to society and politics were well established by the time of the emergence of contemporary environmentalism in the late 1960s when, as Dunaway (2015: 3) notes, there was already "a focus on children as emotional emblems of the future" in environmental campaigning.

White (2017) distinguishes three approaches to generational thinking. The first is the *genealogical*, in which generations describe the concrete ties of determinate individuals with a common genetic inheritance. The second is the *sociological* understanding, in which generations are defined as groups united by different ideas and historical events. The third is the *philosophical* understanding of generations, which is a more abstract approach and

describes a society at different moments of existence. In this regard, generations are seen as a conceptual device than an empirical description. White adds that all three approaches made their way into environmentalist thinking during the twentieth century. From the very beginning of international environmental summits – the 1972 UN Stockholm Conference – the question of future generations was already raised. At that time the discourse mainly focused on the *intergenerational* aspects: they thought that cooperation between the current and older generations was indispensable in order to resolve the challenges. Things look different today, when the media tend to offer a daunting vision of irreversible generational conflict and estrangement. The perceived distance between different cohorts has never been as great. Especially in traditional cultures, young people showed great respect towards the elders and tried to learn as much as possible from their experiences. In contrast, now a young person can shut down and provoke an older person without hesitation. In a clear example of what has become known as the "Okay, Boomer" phenomenon, for instance, the way in which 25-year-old New Zealand MP Chlöe Swarbrick responded to Todd Muller MP was anything but respectful.[2]

The state of youth research

Young people's pro-environmental behavior[3] and the motivation for youth climate activism have been the focus of much research in recent years. In a thorough review of the academic literature, Neas et al. (2022) note that 2018 was a sort of "watershed moment" in the study of youth climate change activism. Reacting to media coverage of the "school strikes", researchers set about trying to discern the mechanisms and future impacts of youth activism. Though Neas et al. (2022) identify some limitations in the research, the results of academic papers, opinion polls and surveys all point to the conclusion that Generation Z is deeply concerned about the environment.

In 2021 the Pew Research Center conducted a representative survey involving over 900 Generation Z participants in the United States, and found that this generation stands out for their high levels of engagement with the issue of climate change (Tyson et al., 2021). This engagement can take various forms, such as donating money, volunteering, attending a rally

[2] "OK boomer": 25-year-old New Zealand MP uses viral term in parliament, *BBC News*, 7 November 2019, www.bbc.com/news/world-asia-50327034.

[3] Pro-environmental behavior, also known as green-, sustainable-, or environmentally-friendly (eco-friendly) behavior, is defined as behaviors whereby individuals take protective actions toward the environment. *Encyclopedia.pub*, https://encyclopedia.pub/entry/2546.

or contacting an elected official. Despite the fact that most of them are concerned about the same issue, they are fairly divided by their political preferences. A young Republican sees the world differently than a young Democrat and while the latter is, for example, really against using fossil fuels, a Republican voter would not oppose that. Most participants consume climate change-related content on social media platforms on a daily basis, and 69 percent of them express anxiety about the future after reading this news. They express more urgency about action than those who are less active online. Their concerns are determined by a variety of things, as noted earlier: time spent on social media, political preference, family patterns and upbringing, and the place they grew up. The majority of Generation Z first heard about environmental degradation in their early years of school, and the amount they know about it is unprecedented. This is hardly surprising given that in the Western school system climate change is part of the curriculum, and after the boom of the new-wave environmental movements, many teachers started to support the school strikes as well.

The situation is similar in other parts of the world. Ipsos conducted a pan-European survey, funded by the European Commission in which 23 European countries took part.[4] The results show that close to half (46%) of young Europeans – 15 to 35 years old – chose climate change as the top priority from a list of "the most serious problems facing the world". In second place was "environmental degradation", including deforestation, air pollution and the loss of biodiversity and only after that came the spread of infectious diseases. Similarly, in a cross-generational study of attitudes in all EU countries, Skeirytė et al. (2022) compared the Baby Boomer generation, and Generations X, Y and Z. They found that younger people's climate change awareness is higher and they are more likely than older generations to take certain climate-friendly actions, for example using environmentally-friendly alternatives to personal cars, or considering the carbon footprint before purchasing a product. If we take a closer look at the local/national level, we see very similar findings. A longitudinal study carried out by Prati et al. (2022) found that among Italian adolescents and young adults, age is the most important predictor when it comes to climate change worry. Specifically, worry increased from the age of 15 years to the age of 30 years.

The Hungarian data are in line with international findings: young people in Hungary face the same challenges and feel the same way. A questionnaire carried out in the fall of 2019 reveals that even though a minority (39 percent) of young people aged 12-19 consider themselves to be informed about climate change, they do believe that it has a strong impact

[4] Pan-European Survey Main multi-country report, #ClimateOfChange, https://eeb.org/wp-content/uploads/2021/04/IPSOS-Multi-Country-Report-complete.FINAL_.pdf.

on their lives (Kovács-Magosi & Székely, 2022). Another very interesting result of the same study is that young people identified their mothers and teachers as environmentally-conscious people in their surroundings, which contradicts the "generational tension" often portrayed in the mainstream media. Hungarian youth think that multinational companies, politicians and adults are responsible for the current state of the environment. When it comes to the question of volunteering, the majority of Hungarian young adults (aged 15-29) were most active in environmental and animal protection, based on the large-scale representative survey (2021), conducted every fourth year in Hungary.

The deep awareness of environmental protection and climate change goes beyond the theoretical level and leads to behavioral changes. Many young people are trying to move towards more sustainable consumption and lifestyle decisions which affect a wide range of areas in their life – for example:

- Vegetarianism/veganism: The number of young people adopting veganism has increased in modern societies in the past few years (Giacoman et al., 2021) as they give up buying products of animal origin (food, hygiene products, cosmetics).
- Fast fashion: There is a growing tendency among young adults for choosing "slow fashion" products over fast fashion items (Mandarić et al., 2021).
- Having a child: The fear of the consequences for climate crisis puts considerable pressure on reproductive choices. A survey indicates American young people are factoring climate change into their reproductive plans (Schneider-Mayerson & Ling, 2020).

Youth climate movements from 2018 to date

The best-known youth climate movement is Fridays for Future, but it is not the only one to mobilize thousands of people. While some campaigns have already become cross-national, others remain on a local level. There are some features that these movements share, for example that all of them started either in Western Europe or in the United States, and that their primary tools for mobilization are social media platforms. Another important characteristic is that they are often leaderless and organized horizontally (Bennet & Segerberg, 2012). Necessarily, age is a key factor in their public image, but an increase in older participants can be observed over time. Regardless of age, the question of personal identification is also significant: in line with Melucci's (1996) analysis, participants have to

have personal connections to a cause linked with experience, culture, and identity. Four main factors can be distinguished that motivate young people to join to a movement: connection to nature through outdoor experiences; family influence and mentorship; seeing injustice in a community and the world; and peer-to-peer learning (Dolan, 2019). Despite the fact that not everyone chooses to be an activist, the new movements play key role in shaping Gen Z's identity. Brügger et al. (2020) found that there are two psychological processes that are related to participation in climate strikes. First, it depends on the degree to which one identifies with others who strike. For example, according to Haugseth & Smeplass (2022) Greta Thunberg became a unifying inspiration for young people already concerned with the climate crisis in Norway. Secondly, participation in strikes is also related to risk perception. The more someone worries, the more likely he/she is to join a movement.

Name	**Year and country of foundation**	**Description**	**Presence**	**Demands**	**Campaign tools**
The Sunrise Movement – We are the climate revolution	April 2017, US	youth movement	n/a	to stop climate change and create millions of good jobs in the process; to end the corrupting influence of fossil fuel executives	demonstrations
Fridays for Future	August 2018, Sweden	youth-led and -organized movement	7500 cities, including Budapest	protest against the lack of action on the climate crisis	school strikes on every Friday
Extinction Rebellion (XR)	31 October 2018, UK	decentralized, international and politically non-partisan environmental movement	84 countries	persuade governments to act justly on the climate and ecological emergency	non-violent direct action and civil disobedience
Letzte Generation	2021, Germany	group of climate activists	10 countries	place maximum speed limits on highways of 100km/h; maximum	road blockades, gluing themselves to the

				9-Euro-ticket for public transport	street/objects
Just Stop Oil	14 February, 2022, UK	environmental activist group; non-hierarchical, operating with autonomous blocks that share resources with each other	n/a	to halt fossil fuels licensing	civil resistance, direct action

Table 2: The most popular youth environmental movements

The number of newly-established youth-led environmental movements has grown sharply in recent years. In addition to those presented in *Table 2,* there are, for example, *Zero Hour, Earth Uprising, Climate Cardinals, Re-Earth Initiative* and *Growth for Green.* Their most common demand is that political leaders listen to the words of scientists to reduce the effects of climate change. However, there are multiple other ideas and claims integrated into their campaigns under the umbrella of climate change. For example, FFF protestors express not only the need for climate action but also call for deeper societal transformation (Marquadt, 2020). Deriving from the concept of "environmental justice", they invented the so-called "climate justice" referring to the fact that climate change is not only a scientific challenge but also has social dimensions. For this reason, social issues such as gender equality, LGBTQ+ rights, the rights of people of color and indigenous peoples are always included during demonstrations. A very striking campaign tool used by more and more movements recently is "non-violent civil disobedience". Disobedience is a wide category that can include any kind of law-breaking, defiance of school attendance laws, demonstrating protest against a law (Mattheis, 2022), gluing oneself to objects or damaging artwork. For example, Just Stop Oil activists threw soup at Van Gogh's *Sunflowers* in Italy in 2022. While such actions usually spark immediate, but short-term media attention, to what extent they are effective and acceptable is questionable.

"The Greta effect"

There have been a number of characters who, with their actions and/or charisma, have exercised a key influence on environmental discourse. In the 20th century, for example, one might think of Gaylord Nelson, the creator of Earth Day; John Muir, the father of US national parks; or Al Gore, vice-president during the Clinton administration. After the release of Gore's famous, yet very divisive, documentary *An Inconvenient Truth* (2006), his name became synonymous with environmentalism. Something similar is true of Greta Thunberg today. The term, "the Greta effect" was coined by journalists to reflect the key role that Thunberg has played in creating a world-wide movement (Sorce, 2022). In part, her success can be explained by the new media infrastructure we have today. New social platforms (Twitter, Facebook, Instagram etc.) opened a new door for collective action and the spread of digital activism. By digital activism (also referred as cyberactivism) we mean a form of activism that uses the Internet and digital media as key platforms for mass mobilization and political action.[5] A very important feature of digital activism is that activists can challenge the gatekeeping-mechanisms of traditional media and call people to action via alternative routes. As discussed further in the section on climate change in the media, news coverage of the issue has changed in the past few years. Activists such as Thunberg have become global communicators with professional platforms and content: she has 14,7 million followers on Instagram, for example, and 5,7 million on Twitter.

At the 1992 UN Conference on Environment and Development in Rio de Janeiro, public attention turned to a 12-year-old Canadian girl, Severn Cullis-Suzuki, who held a speech in front of decision-makers and journalists in which she spoke about environmental issues from the youth's perspective. This was portrayed in the news as "the girl who silenced the world for five minutes."[6] She has remained an activist ever since, but there has never been a "Cullis-Suzuki-effect" mentioned in the literature. In terms of context, the speech she gave back in the 1990s was very similar to the one Thunberg performed at the UN in 2019. Their age was quite similar too when they attended these events. Only one thing differed: the impact they made after that. While thirty years ago there were only traditional media technologies available – i.e. television, radio, print magazines – by the turn of the 21st century the world had changed enormously. Cullis-Suzuki did not have any kind of tools to

[5] Digital activism, *Britannica*, www.britannica.com/topic/digital-activism.

[6] Nearly 30 years before Greta Thunberg, a 12-year-old girl shamed world leaders at the United Nations. *news.com.au* 26 September 2019, www.news.com.au/technology/environment/climate-change/nearly-30-years-before-greta-thunberg-a-12yearold-girl-shamed-world-leaders-at-the-united-nations/news-story/8e99d7fce5e0abae106ce73baa5209b7.

keep environmental protection on the agenda and in the public mind, whereas Thunberg uses interactive platforms on which she and other media users crate, share, discuss and modify user-generated content (Kietzmann et al., 2011). Thunberg's social media accounts are followed by more than 23 million people, thus providing a base for national and local collectives (Sorce, 2022). Herrmann et al. (2022) collected 59,112 posts tagged with #fridaysforfuture and analyzed 91,172 hashtags used therein. They found that these hashtags could be divided into eleven clusters (categories) which provide information about the movement and its focus. Many of the posts concentrated on topics such as climate, lifestyle and health, art or sustainable consumption. This illustrates well how young activists form the discourse with their own content.

"No matter what your age is. You are defined by your action, not by your age."[7] So says Licypriya Kangujam, the world's youngest climate activist. Kangujam, from India, started to be a climate advocate in 2018 at age the age of six. She campaigns for climate action in India, and to make climate-change literacy mandatory in schools, but also travels internationally and takes part in high-level conferences. She addressed world leaders at global climate summits such as the 2019 COP25 summit in Spain, and COP27 in Egypt in 2022, for example. She was inspired by Greta Thunberg to start advocating against climate change and has been nominated for several awards (see for example the Forbes India 30 Under 30).[8] Kangujam's impact is in large part due to her Twitter account and Instagram profile: she has nearly 21,9 million followers. She is obviously extremely busy (see *Figure 1*) and works a lot despite being so young. Kangujam's online presence is key to her popularity's survival. If the mainstream media do not cover her stories, there is constant and content production on her platforms with professional post descriptions and hashtags. However, these social media activities seem contradictory: what is a child doing on these platforms in the first place? How will the "success" created here affect her self-image? Whose interests are served when she is participating in the various summits? Through the examples of these three activists – Severn Cullis-Suzuki, Greta Thunberg and Licypriya Kangujam – we see how the world has changed, and how young climate activists are sometimes used by adults in order to influence a certain discourse.

[7] Tweet by Licypriya Kangujam, 27 November 2022, https://twitter.com/LicypriyaK/status/1596798310936780800.

[8] Forbes India 30 Under 30: The ones we had to mention. *Forbes India,* 8 February 2021, www.forbesindia.com/article/30-under-30-2021/forbes-india-30-under-30-the-ones-we-had-to-mention/66317/1.

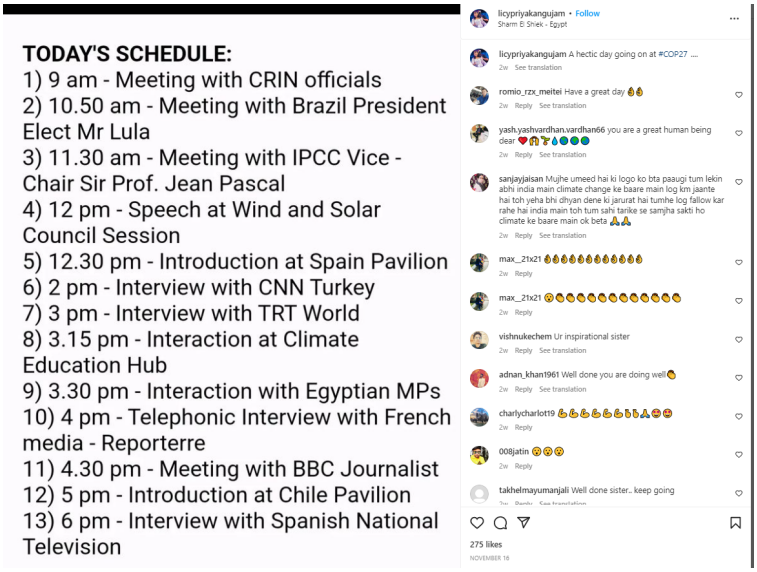

Figure 1: Licypriya Kanguran's schedule at COP27 in Egypt.

Changing climate, changing mental health

In April 2023 *The Telegraph* reported the devastating news of a 19-year-old Greenpeace activist who took his own life after "losing hope over climate change."[9] He was not the only teenager in the recent past who decided to commit suicide because of thinking there was no way out from the "climate crisis." The abundance of information on environmental degradation and apocalyptic climate scenarios that young people encounter in the news and also in schools is not without consequences for their mental health. The psychological term "climate anxiety" was coined only a few years ago to describe "heightened emotional, mental or somatic distress in response to dangerous changes in the climate system" which can lead to symptoms such as panic attacks, loss of appetite, irritability, weakness and sleeplessness (Dodds, 2021). Since children, young adults, the chronically ill, and those with mental illness are the most vulnerable to this information and the real effects of climate change, it is of utmost importance to protect them – to teach the youth how to process the news, how to be mentally strong enough and, instead of losing hope, how to use their talent and power to find solitons.

[9] Teenager took his own life after 'losing hope over climate change', *The Telegraph,* 14 April 2023, www.telegraph.co.uk/news/2023/04/14/theo-khelfoune-ferreras-walthamstow-death-climate-change/.

Climate change in the media

The Media and Climate Change Observatory (MeCCO), an international, multi-university collaboration based at the University of Colorado Boulder, found that US climate change media coverage reached an all-time high in 2021. As shown in *Figure 2*, 2021 saw "the highest the amount of coverage of climate change or global warming" since MeCCO began monitoring media output, up 90% from 2015 and more than double the amount of coverage in 2016, 2017 and 2018 (Boykoff et al., 2022). Not only has the sheer quantity of climate-change news increased in recent years, but the language to describe it also changed. In 2019, for example, the *Guardian* newspaper adopted a new vocabulary, issuing editorial guidelines recommending the use of "climate emergency, crisis or breakdown" in place of "climate change", and preferring "global heating" rather than "global warming".[10]

Let us take one step back in the history of climate change news reporting to better understand today's media mechanisms. Climate change (often referred to synonymously, though misleadingly, as "global warming") has featured on the global media agenda since the 1980s. The rise of interest in this topic occurred alongside the expansion of the Network Society (Castells, 1996) and the appearance of digital media technologies. Despite the increase in climate change news reporting, it has always been challenging for media outlets and journalists to find the best way to cover the topic due to the fact that the effects of climate change often remain invisible. As one former Environment Correspondent for BBC News put it, "above all environmental stories really need good pictures…global warming is very difficult because you can't actually see global warming" (quoted in Anderson, 2014: 66). Without emotive and shocking pictures, it is difficult to sustain public attention. From a visual point of view, it is worth mentioning the tragic incident of Hurricane Katrina in 2005. It was one of the first live-broadcast events during which the world as one "global village" scrutinized the dreadful consequences of a natural disaster and the suffering of hundreds of people.

[10] The *Guardian* noted that the terminology used by other organizations had also changed, including the adoption of the term "climate crisis" by United Nations secretary general António Guterres. See: Why the Guardian is changing the language it uses about the environment, *Guardian*, 17 May 2019, www.theguardian.com/environment/2019/may/17/why-the-guardian-is-changing-the-language-it-uses-about-the-environment.

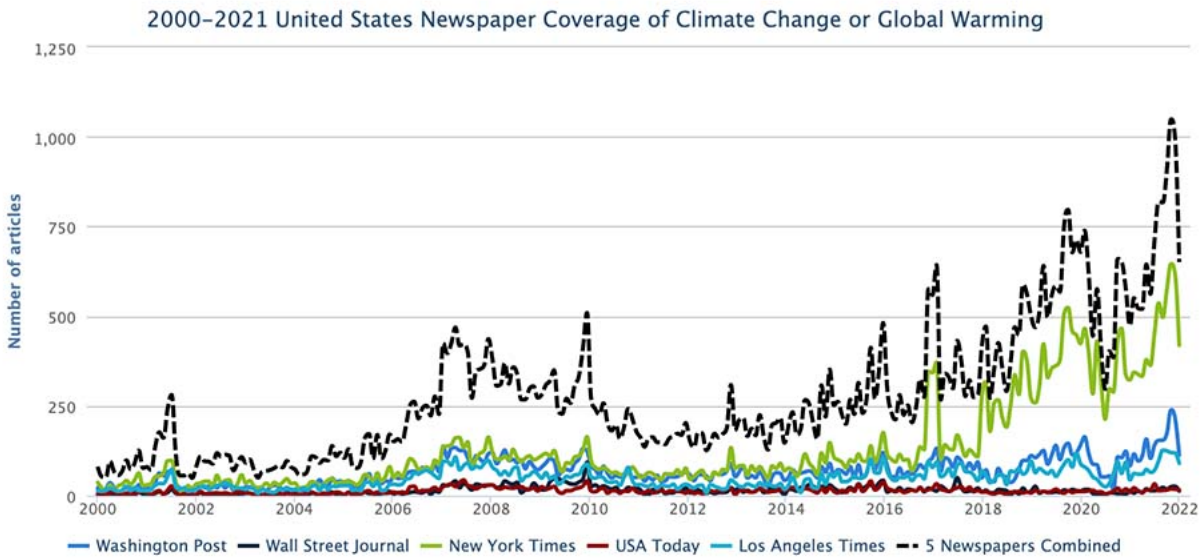

Figure 2: Media coverage of climate change or global warming month to month in *The Los Angeles Times, The New York Times*, *USA Today*, *The Washington Post*, and *The Wall Street Journal* in the US from January 2000 through December 2021 (Boykoff et al., 2022).

With greater or lesser intensity, climate change has always been present on the media agenda since its debut in the 1980s and has also remained a challenge for journalists to portray it in a fresh and involving way up until 2018. That year can be regarded as a turning point in the history of climate change media coverage as the discourse arrived at two milestones. In September 2018, the previously unknown Greta Thunberg grabbed the mainstream's attention with her school strikes ("skolstrejk för klimatet") to be held every Friday in Sweden. She not only became a world-famous activist-celebrity, but she changed the character of grassroots environmental movements. Ever since her first public appearance in August 2018, she has often been seen as a controversial and divisive person, with a remarkable number of followers. As discussed above, phrases such as the "Greta effect", or the "Greta generation" have entered our everyday discourse. Her presence meant a breakthrough for media reporting on climate change from a very different angle and even the people most indifferent to the topic could not easily avoid it.

In the same year, the IPCC released a special report (SR15) stating that "limiting global warming to 1.5°C would require rapid and far-reaching transitions in land use, energy, industry, buildings, transport, and cities" (IPCC, 2018). It is often forgotten that the IPCC reports are based on best- and worst-case scenarios. Yet while climate change modeling presents different possible outcomes, media reporting often focuses on the most terrifying

scenarios and presents them as simple reality. As Boykoff & Pearman (2019) note, after SR15 was published, headlines suddenly turned into "deadlines": reports stated such things as the "planet has only until 2030 to stem catastrophic climate change, experts warn" (CNN), or "we have 12 years to limit climate change before the world as we know it is lost. How much more urgent can it get?" (*The Guardian*). Some IPCC researchers became quite upset after seeing how their report was reframed in the news (Boykoff & Pearman, 2019).

By 2018 it seemed that covering climate change had got stuck and the topic's newsworthiness had lost power. Even the phrase "climate change" had turned into an umbrella term that is too general and sometimes misused. From 2018 onward, the rapid multiplication of youth-empowered climate movements has really stirred thing up and sparked enormous media attention. It is not the politicians nor the celebrities who best represent this topic anymore, but rather the future generations.

Three seconds to mobilize

Robert Cox (2012), a pioneer in the field of environmental communication pointed out that in the last couple of years, social media have dramatically altered the landscape for environmental communication and thus created a "networked public sphere". The fact that environmental and climate change news migrated online has had huge impact on mobilization too. In order to mobilize crowds it is first necessary to catch their attention. There is an ever-growing literature on the different strategies for engaging people in climate action through social media campaigns (Chia, 2021; Brügger et al., 2020; Mavrodieva et al. 2019), while at the same time human attention spans are getting shorter and shorter. In his book, titled *Hook Point. How to Stand Out in a 3 Second World*, Brendan Kane (2020) argues that content creators – whether individuals, media companies or marketing experts – only have three seconds to grab the audience's attention with online marketing. It seems shocking; however, the online world is filled with so much (redundant) information and content that after every third second the users feel the need to scroll down for a new stimulus. That raises the question of how such complex issues (such as climate change) can be squeezed into three seconds without losing the essence of what is being said.

Unstoppable youth: A new level of digital activism

In 2021 the European Greens released a documentary titled *Youth Unstoppable: Another World is Possible* to showcase how youth climate movements have brought climate change public and political attention.[11] The party assumes that the young generation is often misunderstood and struggles to be heard. This film is trying to display a highly positive image about the protesters through presenting a powerful vision for the future of the planet and the youth that will lead us.

The concept of youth grassroot environmental movements is not a revolutionary one – it existed well before the digital age and preceded today's popular youth organizations such as the Fridays for Future or Just Stop Oil. The difference is that prior movements did not gain as much visibility as the new ones. As Pezzullo and Cox (2017) argue, by Earth Day in 1970 the ecology movement had begun to change the way in which citizens communicated with officials about the environment: the voice of the public started to matter more and the people became part of the dialogue. Cox (2012) also highlights that energy, creative ideas and direct actions have often come from youth at a local level. The local organizing initiative around environmental and climate justice always came from young activists based in the United States and Western Europe, as well as from indigenous people from Asia, Africa and South America who are directly exposed to natural threats. As pointed out earlier, however, the contemporary climate movements would not be as wide-spread and known if we did not live in the digital age and did not have social media. The digital media radically transformed the role of impacts of climate and environmental activism. It is now much more accessible, cheaper, faster and also sustainable to reach and mobilize people. There is also excessive know-how cumulated throughout the years to kick-off a new movement and campaign.

Budziszewska & Głód (2021) focused on Fridays for Future in their research and recorded in-depth interviews with FFF activists in Poland. They found that one of the strengths of Friday for Future is that the movement provides opportunities for learning and acquiring new skills if someone would like to become an activist. New members are trained to learn the scientific aspects of climate change, the ways they should organize protests, and how they can be more sustainable in their own lives. They are invited to so-called "climate justice camps" where workshops, lectures and other events are held by experienced activists and professionals. Through this extensive organization, being an FFF activist becomes a

[11] Youth Unstoppable: On the frontlines of the Global Youth Climate Movement, *European Greens*, https://europeangreens.eu/news/youth-unstoppable-frontlines-global-youth-climate-movement.

pleasant activity. When the participants were asked about work-life balance, they confessed that sometimes they did not even feel that they were actually delivering work because they were so immersed in their tasks. These occasions provide young people a chance to meet their peers and to make new connections and friendships, which is especially important to them after a long period of isolation during the Covid-19 pandemic.

Closing remarks – a critical reflection

Climate change and environmental questions have dominated the media agenda for almost forty years now. Beyond academic circles, these issues appear in political discourse and in the public sphere. From a social perspective, it is the now the young generation who mostly discussed in connection with the possible effects of climate change. It is often highlighted that Generation Z will be the cohort who will have to face the consequences of environmental destruction. There are several youth-led movements that appeared during the past five years: these are strikingly similar, go viral within a very short time and are professional both in their rhetoric and marketing. However, the majority of research features only the positive effects these movements: there is often no information provided about who is behind them. The rapidly growing body of research is disproportionate in terms of the geographical location, ethnicity, sex and social class of the participants, which raises important questions. Despite of the abundance of information, the investigated activists are predominantly white, female and from well-educated families living in the Western world (the United States and Western Europe). From this we can conclude that Generation Z is presumably much more complex than we currently imagine them to be. While climate change/environmental degradation is an urgent challenge, it is an exaggeration to state it is what the entire generation (globally) fears most. According to UN data, for example, 169 million youth suffer from poverty and more than 500 million aged 15–24 live on less than $2 a day.[12] As long as we only focus on climate change, we ignore a lot of other areas where youth need immediate help.

The fact that a wide range of young adults is dedicated to fight against injustice and for a better future is impressive, but it would be a mistake to not mention their growing levels of climate anxiety. Climate anxiety is complex and is not yet recognized as a mental illness, however it is connected to many emotions, such as worry, fear, anger, grief, despair and guilt (Hickman, et al. 2021). A representative survey, issued by the psychological association

[12] United Nations, #YouthStats: Hunger and Poverty, www.un.org/youthenvoy/hunger-poverty/.

Very Well Mind (2021) showed that what young US participants are most afraid of is the future of the planet. Constantly hearing news about environmental challenges and disasters puts an enormous pressure and mental burden on this generation. Crandon, et al. (2022) show that children and adolescents are the most vulnerable in terms of climate anxiety. In many cases this fear cannot be transformed into action, but is paralyzing. Curry (2022) sees the apocalyptic rhetoric surrounding the “climate crisis” as primarily responsible for climate anxiety. In her argument, the way climate change is presented to children is far more alarming than what, for example, the IPCC reports say. Young adults and especially children lack the resources to process these messages and thus they fall victim to crisis rhetoric. Young adults are often unprepared to cope with constant negative information. They need hope to envision a livable future and to not lose faith in starting a family or having children. It is valuable if a child is open the world and is raised to be environmentally conscious, but problems occur when someone intentionally treats him/her as an adult and steals his/her childhood. Despite the fact that climate change is a real challenge, six-year old children such as Licypriya Kangujam, should not handle these questions and take part in international world summits. The number of young people who decide to join an environmental movement proves that this generation is longing for a community where they are understood and where they can use and develop their talent and competencies. Parents, teachers and the education system have the greatest responsibility to listen to and to support them so that Generation Z complete their mission.

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