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YOUTH'S ROLE IN SUSTAINABILITY- EXPLORING THE INTERPLAY OF YOUTH, TECHNOLOGY, AND SUSTAINABLE DEVELOPMENT GOALS

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ABSTRACT

In the contemporary era, the younger generation has the ability to significantly contribute to the attainment of the Sustainable Development Goals (SDGs) through their frequent use of technology. Notably, Generation Z, born between 1997 and 2012, represents the first generation to grow in a world where technology is a daily tool of life. Their reliance on technology has transformed the way they perceive and engage with the world around them. The SDGs seek to eradicate poverty, safeguard the environment, and promote universal prosperity.

This research paper aspires to study the collaborative efforts of young individuals, with a particular focus on Generation Z, together with technological advancements in the pursuit of achieving the SDGs. It seeks to answer a fundamental query: does the support offered by today's youth extend exclusively to Western nations or can it be equally applied for the benefit of other global regions? Furthermore, this study strives to give a balanced perspective by examining not only the potential positive contributions but also the potential negative consequences associated with a heavy reliance on technology within the context of sustainable development.

By exploring these critical questions, this research aspires to explain the convergence of Generation Z, technology, and the global pursuit of sustainable development objectives.

Keywords: Sustainable development goals (SDGs), Generation Z, Youth, Technology, Sustainability

ABBREVIATIONS

UN	United Nations
SDGs	Sustainable Development Goals
NGO	Non-Governmental Organizations
MDGs	Millennium Development Goals
BLM	Black Lives Matter
EU	European Union
LGBT	Lesbian Gay Bisexual Transgender
LGBTQ+	Lesbian Gay Bisexual Transgender Queer and more
EWE	Extreme Weather Events
PTSD	Post-Traumatic Stress Disorder
SGRC UI	Support Group and Resource Center on Sexuality Studies University of Indonesia
TSER	Trans Student Educational Resources
WDI	World Development Indicators
OECD	Organisation for Economic Co-operation and Development
NEET	Not Engaged in Employment, Education, or Training
DOJ	Department of Justice
HDOT	Hawai‘i Department of Transportation

DOT	Department of Transportation
NAACP	National Association for the Advancement of Colored People
WHO	World Health Organization
LMICs	Low- and Middle-Income Countries
FGM	Female Genital Mutilation
DHS	Demographic and Health Surveys
MICS	Multiple Indicator Cluster Surveys
ECOSOC	Economic and Social Council
UNDP	United Nations Development Programme

INTRODUCTION: OBJECTIVE AND STRUCTURE OF THE THESIS

This research paper explores the coordinated efforts of youth, notably Generation Z, and technology in pursuing the achievement of the Sustainable Development Goals (SDGs). In the modern time, the younger generation can provide their help in order to achieve the sustainable development goals more sufficiently with the help of technology. Particularly, Generation Z, born between 1997 and 2012, is the first generation to grow up in a world where technology has been an integral part of their lives. Their dependency on technology has transformed the way they perceive and interact with the world. The SDGs aim to eradicate poverty, protect the planet, and ensure that everyone has the opportunity to prosper.

Objective of the thesis

The aim of this research paper is to underline the transformative potential of youth, particularly Generation Z, in contributing to the attainment of the SDGs. It emphasizes the critical importance of amplifying their voices and providing them with opportunities to achieve change effectively. Throughout this paper, numerous instances will be presented, showcasing youth involvement and leadership within the realms of human rights and sustainability. Furthermore, the research delves into the universal significance of granting young individuals, from all corners of the world and diverse backgrounds, the platforms and opportunities they deserve. The objective is to highlight that inclusivity and equal opportunities are not only essential but also highly rewarding for society at large. This study also delves into the pivotal role of technology in facilitating youth-driven change. It provides illustrative examples of how technology serves as a powerful ally, empowering young change-makers. However, it also acknowledges the potential downsides of technology when misused, verifying this with concrete examples of its negative effects. Ultimately, this research strives to highlight how harnessing the power of youth, coupled with appropriate technological support, can be a catalyst for substantial progress towards a more sustainable and equitable world.

To provide a more detailed explanation this research paper examines how the technological dependency of Generation Z has impacted the achievement of SDGs, while

addressing two fundamental questions. Firstly, to what extent can the efforts of Generation Z contribute to the accomplishment of the SDGs? Secondly, does this support only apply to Western nations, or can it also be applied to other regions in the world? As mentioned above, this research seeks to provide a balanced perspective by exploring not only the potential positive contributions but also the potential negative consequences of Generation Z's strong reliance on technology in the context of sustainable development. By exploring these inquiries, this research aspires to highlight the intersection of Generation Z, technology, and the global pursuit of sustainable development.

In gathering data for this study, a qualitative research approach was employed. Qualitative research is a methodological approach that emphasizes understanding and interpreting the perspectives, experiences, and behaviours of individuals or groups within their natural context. While qualitative research often involves techniques such as interviews, surveys, content analysis, and case studies, my study primarily relied on the synthesis and analysis of existing research articles. These research articles, taken from reputable sources and scholarly publications, formed the foundation of my data. I systematically reviewed and analyzed these articles to obtain meaningful insights, identify recurring themes, and gain a comprehensive understanding of the subject matter. By adopting a qualitative research approach with a focus on synthesizing research articles, I aimed to capture the collective knowledge and findings of experts and researchers in the field. This method allowed me to provide a mixture of the existing literature, offering a consolidated perspective on the complex interplay between Generation Z, technology, and sustainable development. My research, therefore, serves as a critical analysis and synthesis of the insights and conclusions drawn from a wide selection of research articles, highlighting both the opportunities and challenges inherent in this dynamic relationship.

The thesis aims at showing how Generation Z has shown a strong interest in social and environmental issues and why it is often referred to as the “sustainability generation”. The said generation is the most interconnected and globalized generation in history, with access to information and communication technologies. They have a growing awareness of global issues and are more likely to prioritize social and environmental responsibility in their personal and professional lives. Through their actions, Generation Z can

contribute to achieving the SDGs. Their efforts can help raise awareness, inspire action among their peers, communities, and governments, and bring about change at local and global levels. While there may be differences in the levels of access to resources and opportunities across different regions and countries, the efforts of Generation Z can still have a significant impact in the rest of the world.

The thesis also intends to indicate that digitalization, in general, speeds up development, helps economic growth, brings people closer together and enables better use of resources. The world that we live in affects all of us and especially the younger generation. It is undeniable that the youth represents the future, and they are one of the world's main agents of change and progress. Young people have the ideas, the creativity and great energy to shape a better world. Through innovation and imagination, they are problem solvers and have great potential to generate a positive social change in the world.

The structure of the thesis

The introductory chapter expounds on the significance of the SDGs by defining their scope and relevance. It also explains the pivotal role of Generation Z in achieving the SDGs and examines their unique relationship with the discourse on human rights. This chapter provides an all-encompassing overview of the SDGs' historical context, mission, and objectives. Additionally, it explicates how the youth's actions align with the United Nations' 2030 Agenda for Sustainable Development. It examines the defining characteristics of Generation Z, with particular emphasis on their dependence on technology. It assesses the efficacy of Generation Z's impact, including whether it exclusively benefits Western nations or if it extends to regions such as Asia, Africa, and Latin America. Furthermore, it explores whether their power is solely limited to social media platforms or if their actions extend beyond the digital realm to affect the physical world. Moreover, it analyses how technological advancements have shaped and influenced their values, beliefs, and behaviours. In essence, the chapter sheds light on the intersectionality between Generation Z, SDGs, the human rights discourse, and technology.

The second chapter delves into the SDGs that affect the youth the most, specifically focusing on the social and economic sector, the environmental sector, the education sector, and the health sector of the SDGs. It thoroughly shows how the youth actively engage to fight for these goals, using the power of digital powerful tools for positive change. It explores the extent to which the efforts of Generation Z contribute to the accomplishment of the SDGs and highlights the challenges they face as they rely on technology. To provide a comprehensive understanding, this chapter includes case studies and incorporates findings from a survey conducted to gain insights into the youth's perspectives and experiences in their pursuit of SDG achievement. It also includes various reliable sources, such as important statistics from reputable organizations like the World Bank to give a deeper insight into the topic.

The primary objective of the survey was to gather valuable insights into how individuals perceive the ecological transition and its accuracy. The survey was designed to be concise, requiring participants to invest just 5-10 minutes of their time. It consisted of a well-balanced set of 16 questions, with the initial four questions focused on gathering demographic information from the participants. To ensure a comprehensive perspective, the survey was distributed to a diverse range of participants spanning different generations. This strategic approach aimed to capture varying perceptions and experiences related to the ecological transition. Older generations often exhibit a heightened level of concern regarding the transition from fossil fuels to renewable energy sources. In contrast, newer generations, particularly Generation Z, frequently hold the perspective that this transition has already occurred. However, such observations beg further investigation to determine their accuracy and depth. By engaging participants from various age groups, this survey aims to delve into these distinct viewpoints while also exploring the nuanced complexities that lie within them. In doing so, I seek to reveal the authenticity of these perceptions and provide a more comprehensive understanding of how different generations truly perceive and engage with the ecological transition.

The third chapter delves into the dual nature of technology's influence. It uncovers the profound potential of technology to create positive impacts, driving advancements in agriculture, healthcare, environmental sustainability, while empowering everyday lives

and upholding fundamental human rights. As this chapter unfolds, it navigates technology's unintended consequences. It exposes the environmental challenges stemming from unchecked technological growth and underlines the dangerous ease with which misinformation and fake news can be spread. Additionally, this chapter provides valuable insights into potential policy recommendations for utilizing the benefits of the technology while mitigating its negative impacts.

CHAPTER I – Generation Z and the Sustainable Development Goals: An Introduction

1.1. SUSTAINABLE DEVELOPMENT GOALS

To start this research, I will provide an informative description of the meaning of SDGs. In 2015, all 193 United Nations (UN) Member States universally adopted the 2030 Agenda for Sustainable Development as a universal call to action to end poverty, to protect the planet and to ensure that by 2030 all people enjoy peace and prosperity. The agenda was created with a view to creating a better, more inclusive and more resilient world by 2030. It was the evolution of a previous process called the Millennium Development Goals (MDGs). MDGs were eight international development goals for the year 2015 to end extreme poverty. The SDGs replace the MDGs, which started a global effort in 2000 to tackle the indignity of poverty. The MDGs set measurable, universally agreed goals to address extreme poverty and hunger, prevent deadly diseases, and expand primary education to all children, among other development priorities. For 15 years, the MDGs have led to progress in many important areas: reducing income poverty, providing much-needed access to water and sanitation, reducing child mortality and dramatically improving maternal health. They also commenced a global movement for free primary education, inspiring countries to invest in their future generations. Most importantly, the MDGs have made huge strides in the fight against HIV/AIDS and other treatable diseases such as malaria and tuberculosis.

The establishment of post-2015 goals was a result of the Rio+20 summit in 2012, which mandated the creation of an Open Working Group to draw up a draft agenda. The UN Conference on Sustainable Development or "Rio+20" took place in Rio de Janeiro in 2012. It resulted in a focused political outcome document containing clear and practical measures for the implementation of sustainable development. In Rio, Member States decided to start a process to develop a set of sustainable development goals that would build on the MDGs and align with the post-2015 development agenda.

The SDGs are a strong commitment to complete what the MDGs started and to address some of the most demanding challenges facing the world today. The agenda of the SDGs

is made up of 17 sustainable development goals, as well as 169 targets and over 230 indicators, with the aim to provide peace and prosperity for the planet and its people. The 17 integrated goals recognize that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability. It has four fundamental principles embedded in it; integration, universality, inclusivity, and leaving no one behind. The agenda is reviewed every year to ensure that it is progressing. The agenda is now in the decade action.

The SDGs aim at transforming the world. They help create better opportunities for the local communities. Organizations worldwide are increasing their efforts to help achieve the goals. However, SDGs face some challenges along the way of their implementation. The main challenges that SDGs face are instability due to conflict between nations, implementation, such as ensuring that programmes adapt the local context, and governance, such as the political will to transform development programmes into sustainable long-term practices.

1.2. YOUTH'S INVOLVEMENT

Youth's role and engagement in achieving the SDGs is very important. Today the world's population is predominantly young. Africa in particular will have more than 1 billion young people by 2035. This highlights the importance of young people in sustainable development strategies. Worth mentioning is that the UN have not hesitated to develop programs to empower and equip youth, in order to meet the goals outlined in the 2030 Agenda. The UN has put policies into place since it was founded in 1945 to address the needs, offer voice and empower young people around the world. Thus, the youth is frequently linked to the decision-making centres at a global level. In fact, within the framework of the 2030 Agenda, young people are notably invited to contribute and commit to the achievement of the global goals of which they are also the primary beneficiaries. Youth organizations and the "Young Leaders for the Sustainable Development Goals" initiative encourage young people around the world to take practical actions and suggest solutions in order to facilitate and help with the implementation of the 2030 Agenda. The Young Leaders for the SDGs initiative was created in 2016. The

Office of the UN Secretary-General's Envoy on Youth unveiled the inaugural class of the Young Leaders for the Sustainable Development Goals which means that every two years 17 young change-makers are recognized for their leadership and contribution to a more sustainable world. In the same manner, the UN is developing programs to support youth organizations and provide them with the necessary tools and resources to participate in the implementation of the Sustainable Development Agenda.

The youth helps build the resilience of communities and stimulate progress in several different ways. For example, by optimizing sustainable development policies. The policies implemented by state institutions must be adjusted and accustomed to the needs of the communities. In order for this to happen, the presence of observers at the local level who work with the government is essential so they can assess and evaluate the progress and effectiveness of the solutions arrayed. The reason why this role is perfect for young people is because based on their experiences, they have the ability to produce and give a critical and objective look at the decisions taken by the public authorities. This makes it an important method for the optimizing of the development policies implemented. Young people stimulate change. They have the force to make their voices heard and inform people of the socio-economic and environmental troubles that infect the planet. In the age of social media activism and youth organizations, they can lead the change and provoke action to build a better world. For example, the NGO ALODE is an organization that created an awareness campaign to change behaviour against the use of plastic bags. The massive use of technology, and influential media that are used largely by young people, are a vital tool to educate on sustainable development. These can make communities aware and informed of the 2030 Agenda and the SDGs in order to obtain everyone's input. Young people have the skills to discover new innovative and long-lasting solutions that can influence their future. They are adequately informed, knowledgeable, conscious, and in tune with the times.

According to the UN, digitalization can support and accelerate the achievement of each of the 17 SDGs, from ending extreme poverty to reducing maternal and infant mortality, promoting sustainable farming and decent work, and achieving universal literacy. Digital technologies have advanced more swiftly than any innovation in our history – reaching

around 50% of the developing world's population in only two decades and transforming societies. By reinforcing connectivity, financial inclusion, access to trade and public services, technology can greatly establish balance.

In the course of history, technological revolutions have changed the labour force by creating new forms and patterns of work, making others obsolete, and leading to wider societal changes. This current wave of change is likely to have profound impacts. For example, the International Labour Organization estimates that the shift to a greener economy could create 24 million new jobs worldwide by 2030 through the implementation of sustainable practices in the energy sector, the use of electric vehicles and increasing energy efficiency in existing and future buildings. Nowadays, digital technologies such as data pooling and AI are used to track and diagnose issues in agriculture, health, and the environment, or to perform daily duties such as navigating traffic or paying a bill. They can be used to protect and practise human rights.

1.3. UNDERSTANDING THE MIND OF YOUTH

To gain genuine insights into the young generation, especially Generation Z, it is important that we pause and actively engage in understanding their perspectives, experiences, listening to their voices, and exploring the factors that shape their thinking. It is necessary to adopt a mindset of curiosity, empathy, and open-mindedness, in order to authentically connect with their thoughts and values.

In the article called "Generation Z: Educating and Engaging the Next Generation of Students" by Corey Seemiller and Meghan Grace, Generation Z is described as being profoundly shaped by various issues such as technology advancement, and social justice movements. The authors explain how Generation Z has grown up with access to vast amounts of information through smartphones, the internet and online connections. They indicate how this generation is also concerned about threats online, such as cyber-bullying and identity theft, and has learned to embrace privacy in their use of technology.

It is true that they have witnessed significant events such as economic instability, public shootings, and violence both domestically and internationally. They are exposed to intimate details of these events through the Internet and social media, which can inject fear and worry. Despite these uncertainties, Generation Z believes in their power to change the world and has shown a strong desire towards social justice issues, equality, and equal human rights. They are described as having a "we"-centered mentality, where their concerns revolve around the well-being of everyone rather than solely themselves. Although the article does not specifically mention Generation Z's perspective on sustainability, their emphasis on social justice issues aligns with the interconnectedness of environmental and social sustainability, and with the UN's 2030 Agenda. They want to solve complex problems, create social change, and work towards a better world which indicates a potential interest in sustainability. They have a "social change" mentality and are motivated to address underlying societal problems.

However, the involvement and commitment of the younger generation in driving sustainable lifestyles and working towards achieving the SDGs can vary across different regions and populations. While it is true that many young people today are increasingly concerned about sustainability and are actively engaged in various initiatives, it is not accurate to generalize that they are universally more active than older generations. Younger generations, particularly millennials and Generation Z, have grown up in a time when sustainability and environmental issues have gained significant notability. They have been exposed to educational campaigns, usable information, and social media that has shaped their awareness and concern for social issues. As a result, they are passionate about sustainability and are actively taking part in organized movements, advocating for policy changes, and embracing sustainable lifestyles. However, it is important to recognize that older generations have also made substantial contributions to sustainable development. Many of the environmental and social movements that created the foundation for sustainability initiatives today were initiated and led by previous generations. Older individuals, too, can actively engage in sustainable practices and drive positive change in their communities. Ultimately, achieving the SDGs requires collective action across generations. While younger generations may bring fresh perspectives, technological knowledge, and energy to the table, intergenerational collaboration is

crucial. By utilizing the experiences, wisdom, and diverse skills of different age groups, societies can come together and work more effectively to achieve sustainable development goals.

In their research article titled “Is the younger generation a driving force toward achieving the sustainable development goals? Survey experiments”, authors Tomomi Yamane and Shinji Kaneko delve into the topic of intergenerational dynamics and explore the critical role of the younger generation in actively advancing the SDGs. Through a series of survey experiments, the authors investigate the attitudes, behaviors, and motivations of both younger and older cohorts, with the scope to shed light on the extent to which the younger generation is emerging as a driving force for positive change in the pursuit of sustainability. By analyzing the data of their research, the authors provide valuable perspectives on the potential of youth-led initiatives and intergenerational collaboration towards a more sustainable future.

In their research they examined whether the younger generation is a driving force for endorsing the SDGs by examining generational differences in lifestyle and the job preferences of younger people. The research highlighted two main findings. The first finding reveals that the younger generation has higher pro-sustainable attitudes or perceptions compared to the older generation. However, when it comes to intrinsic work values and pro-environmental behavior, the younger generation is not necessarily more pro-sustainable than the older generation. In their survey, nearly half of the respondents, including both generations, claimed that they wished to live in a municipality actively implementing the SDGs. However, when it comes to pro-sustainable behavior, it decreased to 30.1% of the total respondents who claimed that they pay a premium for sustainable goods and 14.2% of the total respondents who claimed that they care about corporate contributions to the SDGs when choosing their product or service. In addition, the results from their lasso regressions suggest that the younger generation has attitudes and behaviors that change society to be more sustainable. However, in some other measures, the results did not show that the younger generation is more pro-sustainable than the older generation. Unlike the study by Etezady et al. (2020), which found that millennials were more environmentally conscious in the U.S., the study by Tomomi

Yamane and Shinji Kaneko showed that the younger generation might not contribute to pro-environmental behavior as much as the older generation. Generational differences were found in extrinsic work values; the younger generation is looking for better pay and job security than the older generation. The second main finding suggests that younger generations could change their behavior when they become knowledgeable about the inherent nature of the SDGs. That is because the spread of awareness about the SDGs influences young people's willingness to accept a lower income in favor of working for a more SDG-minded company.

1.4. RELATIONSHIP OF GEN Z AND HR DISCOURSE

Generation Z stands out for its elevated consciousness and involvement in human rights issues, a trait that has been shaped by their distinct upbringing in an ever-evolving digital world characterized by growing diversity, inclusivity, and social awareness. The fact that they have grown up in a more varied and equitable environment has heightened their sensitivity to the far-reaching effects of human rights on people and communities. Generation Z shows a distinct perspective characterized by a strong sense of personal engagement with current and future challenges. Unlike some older generations that may have looked to abstract entities like the state or international organizations to address societal issues, Generation Z embraces a proactive attitude. They believe that the responsibility for problem-solving rests not only with institutions but with every individual. This generation emphasizes the urgency of addressing pressing issues and advocating for collective action. Their outlook shows the belief that society's problems demand immediate attention, and it is the duty of all, including themselves, to contribute to their resolution. Consequently, this generation is an active participant in human rights conversations, utilizing their power to drive change.

The impact of Generation Z does not exclusively benefit Western nations; it encompasses other regions of the world such as Asia, Africa, and Latin America. Their power and influence exceed the boundaries of the digital realm, as their actions have real effects on the physical world. This does not mean that they do not face barriers and challenges along the way when contributing to the achievement of the SDGs. In their quest to push for

positive change, Generation Z encounters, from people with power and authority, skepticism, lack of visibility, not being taken seriously, and being denied opportunities to express their voices and be heard. Yet, despite these obstacles, they keep on challenging societal norms and demanding to be heard. Their determination and resilience are apparent. They inspire and motivate others to join their cause. By actively tackling these barriers, they are proving that age is not a limitation when it comes to creating meaningful impact and shaping a better future.

One of the areas that Generation Z is particularly sensitive to is the environment. With climate change and ecological challenges threatening the future of our planet, this generation is acutely aware of the need to protect the environment. They understand that human rights and environmental issues are interrelated, and that the preservation of the environment is a human right. As such, they are at the forefront of the fight for climate justice and are using their voices to push for policy changes that will protect the planet and ensure a sustainable future for all. They have a strong motivation to take action and demand solutions because they are the ones who will live with the impacts of climate change for decades to come. Climate change has serious implications on young people, especially those who live in poor and marginalized communities. They experience things in a severe way such as extreme weather, high temperatures, higher sea levels, and lack of food. By taking action on climate change, they can protect themselves and their communities from these problems. The existence of climate change is undeniable. It is the significant consequences of these events, which can be measured, that make the younger generations concerned about the future of the environment.

There are many examples of young-led climate activists movements. For example, “Fridays for Future” is a youth-led and organised global climate strike movement that started when 15-year-old Greta Thunberg began a school strike for climate change. In the three weeks leading up to the Swedish election, she sat outside the Swedish Parliament every school day, demanding urgent action on the climate crisis. She was tired of society’s unwillingness to see the climate crisis for what it is. Another example is the “Sunrise movement” which is a youth movement to stop climate change and create millions of good jobs in the process. They are building an army of young people to make climate

change an urgent priority across America, end the corrupting influence of fossil fuel executives on politics, and elect leaders who stand up for the health and wellbeing of all people. Sunrise movement is also supporting the Green New Deal which is a plan to mobilize every aspect of American society to 100% clean and renewable energy, guarantee living-wage jobs for anyone who needs one, and a just transition for both workers and frontline communities—all in the next 10 years. “Zero hour” is also another great example. The mission of Zero Hour is to center the voices of diverse youth in the conversation around climate and environmental justice. It is a youth-led movement creating entry points, training, and resources for new young activists and organizers wanting to take concrete action around climate change. The youth have initiated a variety of movements, each characterized by its own set of actions, such as protests, marches, lawsuits, educational programs, and more, all aimed at raising awareness about climate change and pushing for policy reforms.

It is true that all these movements have been created in Western countries. However, this does not mean that there are no young activists protesting or new movements created in other parts of the world. To name a few exceptional young activists are Melati Wijsen who co-founded Bye Bye Plastic Bags, an organization that aims to eliminate single-use plastic bags in Bali. She started her activism at the age of 12 and has been recognized for her work by the United Nations. Additionally, Vanessa Nakate is a Ugandan climate activist who founded the Africa-based Rise Up Movement to raise awareness about the impact of climate change on Africa and to push for action on the issue. She has been advocating for environmental justice and has been pushing for developed countries to take responsibility for their historical emissions. Licypriya Kangujam is another inspiring example who is a climate activist from India. Since the age of 8, she has been advocating for climate action in India and around the world. She has participated in climate strikes and conferences and has been pushing for the Indian government to take stronger action on climate change.

It is also evident that there are different ways of combating and advocating for climate change. Sometimes some actions might be perceived in a negative way. A recent example of that is when a pair of climate activists from the group “Just Stop Oil” gained substantial

international media attention when they threw tomato soup across Van Gogh's Sunflowers in London's National Gallery. This action was widely criticized. Some circles disapproved of such a statement and argued that activist circles are becoming increasingly violent. However, on the other side, there are young people who are concerned about their future and want to emphasize the importance of the climate crisis, as being those affected by the problem, not the cause of it. These 'extreme' acts are the demonstration of such frustrations by these young activists.

Besides their concerns for environmental challenges, Generation Z also exhibits a high level of awareness towards issues of identity and gender equality. This generation has grown up in a world that is more diverse and inclusive, and they understand the importance of respecting and celebrating differences. They are actively fighting against discrimination and inequality, and are using their power to push for policies that protect the rights of marginalized communities. This includes the LGBTQ+ community, people of colour, and other marginalized groups. Through their activism and advocacy, they are making significant strides in advancing human rights and creating a more just and equitable world. And there are concrete real-life examples that provide evidence for this claim. For example, Jazz Jennings is a Gen Z activist that has been a big voice for members of the LGBTQ+ community, especially those who identify as transgender. She represents the Human Rights Campaign as an Ambassador which is an organisation that strives for a world where every member of the LGBTQ+ community has the freedom to live their truth without fear, and is treated equally before the law. She even co-authored a children's book titled 'I am Jazz' in her effort to provide educators and parents a look into what it is like to grow up doubting your gender identity. She co-founded, with her parents, the TransKids Purple Rainbow Foundation with the mission of promoting the message of tolerance, acceptance and unconditional love which are a birthright for all trans kids. But that is certainly not the only example. There are 14 youth activists who co-created the Equal Power Now Manifesto which calls on decision-makers to open safe, inclusive, accessible, and sustainable pathways to participation for girls and young women. Through the Equal Power Now campaign, they are calling on leaders and powerholders to uphold their fundamental rights; to institutionalise the meaningful and safe participation of girls and their groups, to ensure access to diverse and inclusive

pathways toward political participation, to adopt a zero-tolerance approach to violence towards the political participation of girl activists, and to recognise girls' vital and distinct role in civil society.

In the research paper titled "'Being young and LGBT, what could be worse?' Analysis of youth LGBT activism in Indonesia: challenges and ways forward" it is mentioned that gender identity and sexual orientation are particularly powerful determinants of power and powerlessness. Currently, contemporary international development theories and practices, for example the 'Leave No One Behind' agenda of the Sustainable Development Goals, are highlighting the importance of identity-based marginalisation in perpetuating poverty and lack of development. This research paper focuses on the LGBT activism in Indonesia. There was a particular mention of a youth-led organisation called SGRC UI (Support Group and Resource Center on Sexuality Studies University of Indonesia), which provides counselling for LGBT students at the University of Indonesia. SGRC is a non-profit organization founded by young people under the age of 25 who are engaged in the field of thought studies. It examines matters related to sexuality such as reproductive health, sexual rights, politics of sexual regulation, access to sexual health and education. The aim of the organization is to seek a more comprehensive understanding of issues of gender and sexuality. At the start of 2016, there was a string of violent events aimed at the LGBT community in Indonesia, after an online discussion went viral. The discussion involved the organisation, SGRC. The online discussion started with SGRC offering a counselling hotline for LGBT students to discuss their experience of living as LGBT. The discussion raised issues of discrimination and harassment. When these experiences became public, they kindled heated debates. Members of the SGRC were threatened, even some were expelled from their family homes. In response to these issues, the LGBT community and allies, especially the youth, have taken actions to address and confront violence in a peaceful, non-violent, well-organised manner that included people from various backgrounds. The youth leadership within the LGBT movement is certainly strong in Indonesia. They have shown leadership in fighting back in tactical ways against systemic violence by both state and non-state actors. The LGBT community, particularly young LGBT people, have been actively opposing and standing up against frequent attacks through a range of interrelated tactics

including public education, community outreach, community organising, and providing legal aid and support.

In the Frontiers: A Journal of Women Studies, Eli Erlick, a transgender woman, wrote a piece on trans youth activism on the internet. She was a person who grew up in a rural area in California where there was no understanding of the complexity of gender. The community there was not at all supportive, rather the opposite; they attacked and assaulted her making her isolated from everyone else. However, she thanks the Internet for saving her life. Through the internet she was able to reify her identity and gain the knowledge she needed to live in a community which was not accepting of her. She mentions how the trans youth created much of the content online and provided support. She explains how young trans people are leading these new online organizing methodologies and discussions. Because of the online transgender outreach, she had the opportunity to obtain critical information alongside becoming a queer and trans community activist. She mentions that internet activism is very essential in the trans community. When she was just 16 years old, she co-founded the organization Trans Student Educational Resources (TSER). TSER, which primarily operates on the Internet, offers services and information to trans youth in the United States. The focus of the organization is targeted on social media and the internet because they are frequently the only options these youth have for connecting with the community. The author explains that TSER managed to educate millions of people on trans issues through online outreach alone. Using Google Analytics, they found that TSER's website receives thousands of unique daily visitors and reaches people in countries around the world. Another special significance is that TSER is the only national organization in the United States run entirely by trans youth. Their queer and trans infographic series was quickly shared millions of times on many social media accounts, university, healthcare, organizations, and scholarly websites.

However, the human rights interests and concerns of this generation do not stop there. They are very passionate in advocating for women's rights. For instance, 18-year-old Natasha Mwansa from Zambia charmed over 8,000 attendees at the Women Deliver 2019 Conference when she bravely presented the case to put girls and young people in positions of power so they can actively participate in decision-making processes that impact them,

rather than being side-lined as mere recipients. Another great example is the 23-year-old Krishna Sharma from Nepal who successfully persuaded government officials to allocate funding for the provision of free sanitary pads. Additionally, the 25-year-old Georgian Epure from Romania by hosting a conference and training session, she encouraged human resources staff and employees to develop internal policies and mechanisms to address harassment. Her impactful efforts not only broke the silence surrounding workplace harassment but also prompted employers to launch initiatives for employee safety. Yet another inspiring instance is Oluwaseun Ayodeji Osowobi, from Nigeria. Her and her organization Stand to End Rape, made significant progress in addressing the prevalent culture of violence against women. Her role includes ensuring that survivors of gender-based violence have access to necessary medical, legal, and psycho-social services. As an advocate, she managed to break the culture of silence surrounding rape in Nigeria and founded a support organization for victims. Her efforts earned recognition, including being chosen as one of the 200 Obama Young Leaders: Africa and earning a spot-on Time Magazine's #TIME100Next list.

Another absolutely noteworthy mention is the protests that erupted in Iran following the death of 22-year-old Mahsa Amini, who was arrested by morality police for not conforming to headscarf regulations. Videos shared on social media depicted schoolgirls participating in demonstrations, both within their schools and on the streets. The city of Saqez, where Mahsa Amini resided, witnessed a large gathering of schoolgirls protesting, while in Karaj, girls confronted an official at their school gate, chanting "Dishonorable." Online videos also showed schoolgirls challenging a member of the Basij, a paramilitary force, during a visit to their school. Despite claims by senior officials that the youth have been negatively influenced by the internet, the solidarity displayed in the videos counters this narrative, as men, women, and even boys are seen joining the movement and expressing their support.

Generation Z is also deeply committed to advancing and promoting racial justice. This generation has been very vocal about their concerns regarding systemic racism, particularly after high-profile incidents of police brutality against Black people. Young activists and students have played a serious role in calling for change and transformation

in today's society. They have organized and participated in protests, while using social media to raise awareness about the issue and make their voices heard. They have also been involved in advocating for policy changes and reforms to address racial injustices in areas such as education and criminal justice. This commitment to racial justice is rooted in the values of diversity and inclusivity that are central to their beliefs.

The BLM (Black Lives Matter) movement emerges as one of the most influential movements. And the youth is certainly not staying behind. Countless young people of colour across the United States learned about the power of protest first-hand following the death of George Floyd in 2020. They organized multiple marches, vigils and sit-ins. Across the nation, students have rallied behind the BLM movement and have spearheaded and founded branches of the movement. The Youth Vanguard, founded by Thandiwe Abdullah, and the Black Lives Matter Youth Coalition, founded by Nupol Kiazolu in the South Bronx, are examples of the powerful activists in the movement. Student activism has proven to be highly effective, particularly in addressing racial injustices on college campuses. A notable example occurred at the University of Missouri in 2015, where students protested against racial slurs and mistreatment. Their collective actions led to the resignation of their then President, who had failed to adequately support students of colour in the face of these challenges.

Once again, social media has proved its powerful influence in contemporary activism. It has become a vital platform for activists, including students, to spread useful resources and information regarding the urgent pursuit of racial justice. Through social media, students share valuable links to petitions, provide guidance on safe protesting methods, create templates for contacting authorities, list bail funds, highlight black-owned establishments in need of support, and share videos documenting cases of police brutality during protests.

Immigration is another topic that is close to the values and beliefs of Generation Z. They recognize the importance of promoting and calling for inclusion and tolerance. They are actively advocating for the rights of immigrants and refugees, and organizing protests and social media campaigns to raise awareness about the challenges they face. They have

been involved in lobbying governments and organizations to take action towards building a more inclusive society. They have provided support and resources to immigrants and refugees, as well as tried to challenge policies that perpetuate inequality and discrimination. This generation is uniquely positioned to contribute to this issue, given their diverse backgrounds and experiences with globalization.

A stand-out case is the United We Dream which is the largest immigrant youth-led network in the USA. With an impressive membership of over 720,000 individuals, including over 100 local groups across 28 states, their influence extends to a huge online audience of more than 5 million people each month. The organization's core mission is to prioritize the voices and experiences of those directly affected by the immigrant journey, ensuring their active involvement in shaping important decisions and policies. Another noteworthy mention is the Youth Advocates for Immigrants and Refugees which is a group of passionate high school and college students who have joined forces to encourage cross-cultural understanding through art, activism, and storytelling. Through their dedicated efforts, they have established a podcast series that serves as a platform for immigrant and refugee youth to share their personal stories, providing intercultural connections and fostering empathy within the Portland-metropolitan community.

1.5. CONCLUSIONS

The first chapter of this thesis delved into an in-depth analysis of the significance of the SDGs, providing a comprehensive understanding of their scope and relevance. By examining the history and background of the development of the SDGs, it highlighted the evolution of global efforts towards sustainable development and the pressing need to address interconnected global challenges. Furthermore, the chapter explored the pivotal role of Generation Z in the achievement of the SDGs, emphasizing their unique relationship with the discourse on human rights. It showcased how young people, especially Generation Z, actively engage with and contribute to the pursuit of the SDGs, aligning their actions with the principles and objectives outlined in the United Nations' 2030 Agenda for Sustainable Development. Moreover, the chapter highlighted the intersectionality between Generation Z, the SDGs, and the broader human rights

discourse. It showed how the youth's advocacy, activism, and innovative approaches resonate with the principles of social justice, equality, and inclusivity embedded within the SDGs. By actively addressing issues such as poverty, inequality, climate change, and gender rights, Generation Z showcases their commitment to the realization of a sustainable and equitable future for all.

CHAPTER II – THE IMPACT OF SDGs ON YOUTH

2.1. INTRODUCTION

Among the various age groups, it is the youth who are particularly impacted by certain SDGs, and their enthusiasm and determination to achieve these goals are undeniable. This chapter delves into the SDGs that affect the youth the most, explores the reasons behind their eagerness to fight for their achievement, and highlights how technology has become an invaluable tool in their actions. It examines their grassroots initiatives, community projects, and global campaigns that directly tackle the SDGs. A particular focus is placed on how technology supports and fuels their efforts, enabling them to raise their voices, mobilize communities, and bring about positive change. Through case studies and real-life examples, the chapter highlights inspiring initiatives and showcases the substantial impact of their technological works and ventures.

Several SDGs directly impact the lives of young people worldwide. These goals include but are not limited to SDG 1: No Poverty, SDG 4: Quality Education, SDG 5: Gender Equality, SDG 8: Decent Work and Economic Growth, SDG 11: Sustainable Cities and Communities, SDG 13: Climate Action, and SDG 16: Peace, Justice, and Strong Institutions. The challenges faced by the youth in relation to these goals are diverse and multifaceted, ranging from limited opportunities and discrimination to environmental threats and social injustices.

The central question that guides this inquiry is: How do all the sectors impact the youth, and what are the prevailing problems they face in their pursuit of a sustainable, equitable, and just future?

2.2. THE SOCIAL AND ECONOMIC ASPECTS OF SDGS

The social and economic sector directly influences the well-being, opportunities, and prospects for the future of the youth. In the context of sustainable development, this sub-chapter focuses on exploring the impact of SDGs 1, 8, and 10 on the youth, with a particular emphasis on the social and economic aspects. SDG 1 aims to eradicate poverty,

SDG 8 addresses the need for decent work and economic growth, and SDG 10 seeks to reduce inequalities. By analyzing the social and economic sector through the lens of these SDGs, we can gain valuable insights into how these goals affect the youth and what challenges they encounter within this domain.

2.2.1. GOAL 8: DECENT WORK AND ECONOMIC GROWTH

The goal is to promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. By 2025, target 8.7 of this goal seeks to end all kinds of child labor as well as the worst types, such as the recruitment and employment of child soldiers. In the realm of social and economic issues impacting youth, two critical concerns stand out: child labor and youth unemployment. Currently, the world fights with the distressing reality that approximately 152 million children are involved in child labor, with an awful 72 million enduring hazardous conditions. Although there has been progress in limiting child labor, with a decline of 94 million child laborers over the past two decades, the COVID-19 pandemic poses an imminent threat to this progress, as it may slow or even reverse the gains made, potentially pushing more children into dangerous labor. Another frightening issue is the recruitment of children, totaling over 75,000, by state and non-state actors for exploitative purposes, including armed conflicts. This alarming situation, as confirmed by the Secretary General's report on children and armed conflict, highlights the urgent need for measures to combat the worst forms of child labor worldwide.

Meanwhile, the global youth unemployment rate (people aged 15 to 29 years), currently standing at 14 percent, is three times higher than the adult rate. This disparity raises concerns about the future prospects of the rapidly growing population of young people, projected to reach nearly 2 billion by 2030. The workforce of tomorrow faces an uncertain situation, as many lack adequate preparation and skills training because of insufficient investment in education. Urgent actions are required to create safe and secure opportunities for young individuals, address labor market inequalities, and equip them for the challenges of the evolving workforce landscape. Tackling these pressing social and economic issues not only requires immediate attention but also aligns with the broader

mission of achieving the SDGs and forming a more just and equitable world for the youth of today and the leaders of tomorrow.

The World Bank's Atlas of SDGs 2023 provides interactive storytelling and data visualizations on the 17 SDGs, drawing from various data sources, including the World Bank's World Development Indicators (WDI) database. According to the source, the emergence of COVID-19 in 2020, along with the measures taken to combat the disease, caused the most significant global economic decline since World War II. This economic shock, coupled with other factors like inflation and Russia's invasion of Ukraine, has created challenges for the world's economic recovery. Although economic growth resumed in 2021, it started from a lower base due to the sharp declines in the previous year. The trajectory of economic recovery remains below pre-pandemic forecasts, partly due to the ongoing impact of COVID-19 and other challenges like inflation and conflicts. When comparing the current projected economic output to pre-COVID forecasts, there is a considerable shortfall of around $4.7 trillion. This indicates that the world is facing an uphill battle to recover the economic losses sustained in 2020.

2.2.2. GOAL 1: NO POVERTY

Goal 1 sets a crucial objective: to eradicate poverty in all its forms, worldwide. A significant milestone within this goal is the commitment to address child poverty, marking the first time it has been explicitly targeted. Child poverty is distinct from adult poverty, as it impacts children uniquely. Their needs and expectations differ, and the consequences of poverty during childhood can have lifelong implications. Child poverty is expressed as a lack of both public and private material resources, depriving children of fundamental rights such as access to adequate nutrition, healthcare, clean water, education, and shelter. These deprivations significantly diminish the life prospects of underprivileged children, impeding their ability to realize their full potential. The enduring consequences of such deprivations extend beyond the individual children and affect future generations and societies at large.

According to the World Bank's WDI database, before the pandemic hit, a shocking 659 million people were struggling to survive, living on less than $2.15 a day. The COVID-

19 pandemic disrupted years of progress in combating extreme poverty by pushing an additional 70 million people into the ranks of the extremely poor. For the first time since the 1997 Asian financial crisis, the number of people living in extreme poverty increased in 2020. This setback makes it much harder to achieve the goal of ending poverty by 2030, unless there is an unprecedented growth in the poorest countries. As things stand, projections show that in 2030, a staggering 574 million people, which is nearly 7% of the world's population, will still be struggling to survive in extreme poverty.

2.2.3. GOAL 10: REDUCED INEQUALITIES

Goal 10 is focused on combating inequality within and among countries. It recognizes that inequality often begins with the circumstances of one's birth, influenced by factors such as parental background and birthplace, which determine the resources and opportunities available to individuals. These social and economic inequalities, especially in early life, can severely limit one's ability to realize their rights and reach their full potential. Discrimination based on age, gender, ethnicity, race, disability status, sexual orientation, migratory status, and other factors further exacerbates disadvantages throughout individuals' lives, often unnoticed and pervasive. These patterns of inequality have a lasting impact, perpetuating across generations.

Analyzing income distribution offers valuable insights into measuring inequality within European Union (EU) countries. One significant measure is the income quintile share ratio, which compares the income of the top 20% with the highest disposable income to that of the bottom 20% with the lowest disposable income. A higher ratio indicates greater income inequality between the two ends of the income distribution. Over the years, the EU has witnessed a fluctuating trend in this ratio. It decreased from 5.22 in 2014 to 4.89 in 2020, reflecting progress in reducing income inequality. However, in 2021, this trend reversed, with the ratio rising to 4.97, indicating a slight increase in income disparity. In other words, in 2021, the wealthiest 20% of the EU population earned almost five times as much as the poorest 20%.

One crucial focus of the World’s Bank WDI data is income inequality, measured by the Gini index, a prominent indicator of SDG target 10.4. The Gini index scales inequality

from zero, representing perfect equality, to 100, indicating extreme concentration of resources in one individual. This indicator typically ranges from 25 to 60 among countries, with Slovakia having the lowest Gini index of 23, signifying relatively lower income inequality, and South Africa recording the highest Gini index of 63, showing significant income disparity. Furthermore, the global Gini, which accounts for inequality within and among countries, was 62 in 2019, reflecting progress in reducing global inequality. However, the COVID-19 pandemic changed this positive trend, witnessing the largest increase in global inequality since 1990. Before the pandemic, World Bank projections suggested that the trend of declining inequality would continue. Unfortunately, that did not happen. Compared to the projections conducted prior to the pandemic, the global Gini increased by 0.7 in 2020. Job losses and school closures during the pandemic exacerbated existing social inequality, pushing families further into poverty and impacting children's physical and mental health. The crisis underscored the need for a multidimensional approach to tackle poverty, particularly child poverty, and highlighted the importance of robust national policies to address societal inequality.

2.2.4. YOUTH'S RESPONSE

In response to these pressing challenges, young people around the world are taking proactive steps to drive change, aligning their efforts with the SDGs 1, 8, and 10. Youth-led initiatives, movements, and organizations dedicated to social entrepreneurship, community development, awareness, and empowerment are on the rise. They actively engage in creating innovative and inspiring solutions, such as social enterprises, to address economic disparities and uplift marginalized communities, while also demonstrating their commitment to raising awareness through volunteering efforts. By promoting entrepreneurship and sustainable economic practices, young individuals contribute to local economies and push for inclusive growth, championing the ideals of SDGs 1, 8, and 10.

A comprehensive and insightful explanation on youth participation is explored in the research paper entitled 'Youth-led social change: Themes, types of engagement, organizational types, strategies and implications' written by Elaine Ho, Amelia Clarke and Ilona Dougherty. The authors explore the multi-faceted nature of youth participation

in social initiatives. They analyze the different ways in which the youth have actively participated throughout the years, showing their preference for diverse organizational models, which include informal groups, non-profit organizations, for-profit ventures, and social enterprises. The research thoroughly explains how youth participate in advisory bodies, such as youth wings of political parties or youth councils. The paper also highlights the proactive approach of many young individuals, who choose to make independent efforts to drive change rather than being associated with particular groups or organisations.

In addition to direct actions, the youth also utilize technology as a catalyst for change in the social and economic sectors. The widespread use of technology and social media has enabled them to communicate with people from all over the world, which has facilitated international trade and communication. This has had a positive impact on the economy and has contributed to the achievement of the SDGs 1,8, and 10. Digital platforms enable them to access information, engage in online discussions, and collaborate across borders, advocating for global solidarity. They use social media to share information and online petitions. They use crowdfunding platforms to advocate for policy reforms, support social enterprises, and raise funds for impactful projects. The use of technology enables them to bypass traditional barriers, effectively communicate their messages, and engage with wider audiences. For example, one powerful tool young people use is the use of petitions. One notable example of recent advocacy gaining traction through social media, particularly on the platform of LinkedIn, is the movement to ban unpaid internships. Traditionally, companies and organizations offer unpaid internships, often requiring full-time commitments of 8 hours per day, requiring young interns to relocate to expensive cities and support themselves with little to no compensation. However, with the circulation of this petition, some progress has been made, prompting some organizations to now offer remuneration to young adults participating in internships. Despite this positive shift, there is a considerable distance to be covered before achieving a comprehensive change in the treatment of interns and eliminating unpaid internships. Yet another instance is the advocacy guide called the “Youth Advocacy Guide”, which was created by people of varying ages, with different lived experiences, and a passion for change. The guide was created through an extensive consultative process, which brought

together the voices of young people to support users along their advocacy journeys. The guide features an overview of the tool and how to use it, a special resource hub on Voices of Youth developed to support it, and stories from youth advocates. It explains how to understand and engage with policies, how to network and foster allyships, and how to attend conferences and meetings with decision makers. Furthermore, it is noteworthy to mention the WE charity, which, although not youth-led, attracts a significant number of young volunteers. The WE Movement has a massive network of over 4 million students and teachers in 16,000 schools across Canada, the US, and the UK, which actively combats issues like child labor, hunger, and poverty on local and global levels. The movement operates both domestically and internationally, with young people being its most passionate advocates. Through the WE Schools program, students actively engage in acts of service that bring global issues into the classroom, encouraging a culture of service and awareness among the youth.

However, it is important to acknowledge that the youth encounter challenges in their efforts to fight for social and economic issues. These challenges include skepticism from older generations, limited access to resources and networks, and systemic barriers that perpetuate inequality. When undertaking social entrepreneurship, they encounter a double bind, which obstructs them from starting and growing their social enterprises. Similar to social entrepreneurs in general, the youth face issues of visibility and understanding of social entrepreneurship. However, their age aggravates these challenges and other aspects related to entrepreneurship, such as the lack of credit history, which restricts their ability to secure financing. This is very well explained in the 2022 report called “Unlocking the potential of youth-led social enterprises" by OECD. The report highlights the challenges faced by today's young people in achieving independence and entering the workforce. Compared to older generations, the current youth generation encounters a unique set of obstacles, including lower income levels than their predecessors, increasing costs of living and housing, and a slower accumulation of wealth. Different factors contribute to these difficulties, such as labor market volatility, delayed entry into the job market, higher expenses for education and living, and slower earnings growth. Over the past few decades, the poverty rate among young people has risen from 10% to 16%, while poverty rates for older individuals have declined. Before the COVID-19 pandemic, there were

approximately 68 million young job seekers worldwide, with more than 123 million working but living in poverty, and around 270 million not engaged in employment, education, or training (NEET). In 2020, the global share of NEET youth reached 23.3%, the highest level in over 15 years. Across OECD countries, an average of 14.5% of 15 to 29-year-olds were classified as NEET in 2021.

Therefore, without adequate support and opportunities from organizations and companies offering decent salaries, it becomes challenging for young individuals to actively engage in addressing social and economic issues. However, despite these obstacles, the youth remain determined to create and lead new social enterprises. Specifically, the abovementioned report reveals that such social enterprises have positively impacted the economy by generating more job opportunities. The report describes that in some countries, social enterprises play an important role in combating unemployment, particularly for young individuals, and they even possess the potential to make an even greater impact. In a world facing major environmental and social challenges, the passionate voices of young people demanding change should not be overlooked. Youth-led social enterprises have a double opportunity for conducting business with a social impact while driving transformative change through entrepreneurial solutions. These enterprises conduct business in a manner that upholds the principles and values of the social and solidarity economy, emphasizing the importance of people and the environment over capital, as well as promoting mutuality, solidarity, and inclusion. A prime example of this is Eva, a co-operatively owned ridesharing and delivery application active in five cities across Canada. At the young ages of 21 and 22, Dardan Isufi and Raphaël Gaudreault launched the platform cooperative, in 2019. Their innovative creation quickly gained popularity and became the second most used ridesharing app in Québec. With a strong drive to tackle economic disparities and challenges posed by mainstream ridesharing services, Eva utilizes a blockchain-based platform that connects riders to cooperative worker-owners (drivers) at fixed prices.

2.3. THE ENVIRONMENTAL ASPECTS OF SDGs

As of 2023, the environmental sector of the SDGs has a keen impact on the youth. The current state of the environment, characterized by issues such as climate change,

biodiversity loss, and pollution, has significant implications for the well-being and future of the younger generation. This sub-chapter concentrates on the following goals: SDG 7: Affordable and Clean Energy, and SDG 13: Climate Action. SDG 7 seeks to ensure access to affordable, reliable, sustainable and modern energy for all, and SDG 13 aims to combat climate change and its impacts by taking urgent action.

2.3.1. GOAL 7: AFFORDABLE AND CLEAN ENERGY

The goal aspires to ensure that everyone has access to energy that is affordable, reliable, and good for the environment. This kind of sustainable energy is crucial because it greatly improves the quality and availability of services that children need for their survival, growth, and well-being. It is vital to prioritize sustainable energy solutions to address this alarming problem. Sustainable energy measures offer significant benefits by effectively reducing indoor air pollution and mitigating related health risks, particularly for children.

When there is not enough electricity available, it can impact education, leading to lower performance and attendance, and difficulty attracting and keeping teachers. For example, children need good lighting in their households to carry out their daily tasks and study effectively at night. In places like health centers and schools, energy is necessary for lighting, using medical equipment, cooking, and staying connected online. Another alarming situation is indoor air pollution and poor air quality. The Lancet's "Countdown on Health and Climate Change" highlights the worsening air quality's impact on child health. Indoor air pollution, mainly caused by the burning of solid fuels, suggests a serious concern, leading to over half a million deaths of children under the age of 5. There are a lot more children that experience lasting damage to their developing brains and lungs due to this issue. In many developing countries, families still rely on traditional cooking methods using solid fuels like wood, charcoal, or dung. The indoor smoke produced by these fuels can lead to serious health issues for children, including respiratory infections and diseases.

However, ensuring access to energy is indeed essential, but it comes with a trade-off: increased access often leads to higher greenhouse gas emissions, negatively impacting the environment. This goal seeks to strike a balance by aiming to provide everyone with

affordable, reliable, and environmentally friendly energy sources. The World Bank's data reveals a noteworthy trend. Between 2000 and 2019, global electricity accessibility rose from 78 to 90 percent of the population. However, during the same period, greenhouse gas emissions from the electricity and heat sector also climbed from 1.7 to 2.1 tons per capita. This dynamic is evident in regions like East Asia & Pacific and the Middle East & North Africa, where access to electricity is expanding, but emissions per capita are simultaneously rising. In Latin America, progress is being made toward universal electricity access, with relatively lower emissions due to a greater reliance on hydropower compared to other regions.

2.3.2. GOAL 13: CLIMATE ACTION

The goal seeks to take urgent action to combat climate change and its impacts. This issue is not only an environmental concern but also an equity issue that greatly affects the rights of every child, especially those who are most disadvantaged. Protecting and fulfilling children's rights, which are integral to the SDGs, requires determined efforts to address and adapt to climate change.

For children, climate change directly threatens their ability to survive, thrive, and grow. Even though children are not the ones primarily causing changes in the environment that lead to climate change, a significant portion, approximately 90%, of the negative health impacts caused by climate change-related diseases affect children who are under the age of 5. In other words, young children who have had little to no role in causing environmental changes are disproportionately affected by the health problems caused by the consequences of climate change. Tragically, over half a million children under 5 lose their lives each year due to causes related to air pollution, and many more endure lasting harm to their developing brains and lungs. As a result, the current generation of children will be the first to experience a world made more precarious and unpredictable by the consequences of climate change and environmental degradation. UNICEF estimates that by 2050, an additional 95 million children could be malnourished due to climate change. Additionally, according to WHO, climate change is expected to cause an additional 250,000 deaths per year between 2030 and 2050, primarily due to malnutrition, malaria, diarrhea, and heat stress in children. Climate change contributes to the spread of diseases

like malaria, dengue fever, and Zika virus, which disproportionately affect children due to their developing immune systems. The American Academy of Pediatrics reports that climate change is amplifying the geographic range of disease vectors which means that climate change is causing disease-carrying organisms (vectors) to spread to new areas where they were not previously found.

2.3.3. THE PSYCHOLOGICAL EFFECTS OF CLIMATE CHANGE

Climate change has a multifaceted impact on children, affecting not only their physical well-being but also their mental health. Beyond the evident challenges to their physical health, climate change-related events such as hurricanes, floods, and displacement cause significant psychological stress and trauma on children. The effects of these events can leave lasting emotional damage.

The study titled "The Psychological Impacts of Climate Change on Children," written by Susie E. L. Burke, Ann V. Sanson, and Judith Van Hoorn, researches thoroughly this subject matter. The authors highlight that children exposed to extreme weather events (EWE) disasters, along with the resulting family stress, disruptions to social support networks, and displacement, face an increased vulnerability to developing PTSD and other mental health challenges such as depression, anxiety, phobias, panic disorders, sleep disturbances, attachment issues, and substance abuse. Beyond diagnosable mental health conditions, the psychological outcome of traumatic experiences coming from climate-related disasters can result in challenges related to emotion regulation, heightened cognitive deficits, learning difficulties, behavioral disruptions, adjustment difficulties, compromised language development, and hindered academic performance.

The article also explores the impact of prenatal exposure. The prenatal exposure to a range of environmental stressors linked to climate change, such as heat waves, EWE disasters, and the Zika virus, has been shown to produce adverse mental health impacts on children. These threats can hinder fetal growth, leading to developmental implications in behavior, motor skills, IQ, and neurological development. Prenatal exposure to EWE disasters could potentially elevate the risk of a child developing conditions like asthma, schizophrenia, autism, and compromised language development.

The article also emphasizes that a stable family and community environments are vital for healthy cognitive, biological, and neurological development. Disruptions like sea-level rise, water and food scarcity, and economic hardships can harm children's mental and physical health. EWEs contribute to environmental chaos, particularly affecting low-income families, exacerbating economic, housing, and relational insecurities. Displacement due to climate-related disasters, which has affected around 22.5 million people annually since 2008, including many children, leads to trauma symptoms and adjustment issues. Indigenous communities face unique challenges, such as loss of cultural identity and higher rates of mental health issues, due to the loss of their homeland and way of life.

2.3.4. YOUTH'S RESPONSE

Indeed, Generation Z is actively engaged in addressing pressing environmental concerns through a multifaceted approach that extends beyond conventional boundaries. Their contributions encompass activities and efforts such as using social media to spread awareness, organizing impactful campaigns, and uniting and marching on the streets to amplify their voices. They have also shown their commitment by creating online surveys to gather and evaluate public opinion, assembling fundraising initiatives, participating in conventions to express their viewpoints, and even taking legal action in court cases. In Chapter I, sub-chapter 1.4, I explore these practical manifestations of their dedication with real-life examples. These determined efforts show the generational commitment to driving change, and in the following sections, I will delve into the legal cases that highlight their proactive role in promoting sustainability.

2.3.4.1. CASE STUDIES

The following case studies delve into real-world instances that show the serious dedication of youth towards environmental improvements. These cases serve as a testament to the strong commitment of young individuals in advocating the cause of environmental transformation. However, they also shed light on the hard challenges that young activists encounter in their pursuit of these goals. These challenges serve as

reminders of the uphill battles that youth often face when advocating for what they believe in, emphasizing the resilience and determination that drives their efforts forward.

Juliana v. *United States:*

An important case to highlight is the *Juliana* v *United States* case. Back in 2015, a group of 21 young Americans took legal action by filing a constitutional climate lawsuit against the U.S. government. They believed that the government's actions leading to climate change were violating their fundamental constitutional rights such as the right to life, freedom, and property. Moreover, they argued that the government's efforts to protect essential public trust resources were insufficient. In fact, they claimed that the government was allowing and even promoting the consumption of fossil fuels.

In January 2020, a panel of judges from the Ninth Circuit, which is a U.S. federal appellate court, dismissed the case. The reason for this dismissal was that the claimants did not have sufficient legal standing to request a court order. Later on February 10, 2021, the Ninth Circuit, consisting of all judges, made a decision without any written disagreements opposing it. They denied the appeal made by the claimants to review the case again. In July of the same year, the claimants asked for permission to modify their legal complaint, possibly to address the issues that led to the case being dismissed earlier. Negotiations to reach a settlement in the case were ongoing, but they fell through in November 2021, indicating that the parties involved were not able to reach an agreement. However, in June 2023, the District Court, which is the lower court involved in this case, approved the claimants' request to change their legal complaint. On June 1, 2023, U.S. District Court Judge Ann Aiken made a decision in favor of the 21 young claimants. This ruling puts their climate case back on track to proceed to a trial in court. Despite this favorable ruling, the U.S. Department of Justice (DOJ) is taking an aggressive approach by submitting motions to postpone or dismiss the case. This is contrary to the promises made by the Biden Administration to collaborate with young people for climate justice. Both parties involved in the case, which are the claimants and the DOJ, will continue to provide arguments and evidence related to the same legal issues. These issues have already been addressed by the courts multiple times. In the near future, Judge Aiken is expected to make a decision based on the recent motions submitted by both sides.

The impact of the *Juliana v. United States* case has expanded across different spheres, demonstrating its significance in the world of climate change advocacy. Notably, the legal precedent set by the Juliana case has inspired similar efforts with the aim of holding governments accountable for climate action. For instance, a case similar to Juliana, also advocated by Our Children's Trust, occurred as *Held* v. *Montana*, claiming harm under Montana's state constitution (this case will be further explored in the following paragraphs). This demonstrates the strong influence of the Juliana case in inspiring youth-led climate litigation on a regional level.

The importance of the Juliana case has surpassed legal circles, reaching broader audiences through media platforms. The compelling narrative of the case was featured on the news program "60 Minutes" not just once, but twice, amplifying the issue to a vast viewership. Moreover, the case has attracted attention through the creation of a documentary. The documentary titled "*Youth* v *Gov,*" is dedicated to showcasing the essence of the lawsuit, which became available for streaming on Netflix in April 2022. This means that more people have had the opportunity to watch and learn about the case. This documentary further highlighted the youth's unwavering determination to bring about positive change and showcased the monumental impact of their actions.

Beyond media coverage, the Juliana case has attracted the support of various climate activists. Greta Thunberg, the well-known environmental advocate, supported the cause, standing alongside the claimants before Congress, in her Earth Day speech. Thunberg's endorsement of the case underlines its global significance and its role in stimulating international climate activism.

Held v. *State of Montana:*

This recent and significant constitutional climate case occurred in the state of Montana, USA, in 2023. This case showcases the strong commitment of young individuals to the cause of environmental change. Sixteen young individuals from Montana initiated this lawsuit to protect their constitutional rights to a healthy environment, life, dignity, and freedom. The main concern was the state of Montana’s endorsement and support of fossil

fuel extraction and combustion, which aggravated the climate crisis and detrimentally impacted the lives of these youths. The claimants based their claims of rights infringement on the principles laid out in Article II Section 3 and Article IX Section 1 within Montana's constitution, that emphasize the right to a clean and healthful environment for present and future generations.

In response to the presented evidence and arguments, District Court Judge Kathy Seeley ruled in favor of the youth claimants. The court determined that Montana's policy for evaluating fossil fuel permit requests was unlawful and contradicted the state's constitution. The court recognized the violation of the claimants' constitutional rights due to the state's actions contributing to the climate crisis.

The case not only addressed the immediate concerns of the young claimants but also it now serves as a precedent for future environmental and climate-related legal battles. The case is part of a small but expanding group of examples from around the world where court decisions highlight that governments have a duty to protect their citizens from the negative effects of climate change. This case study shows how Generation Z is actively engaging in legal actions to ensure the protection of their environmental rights and contribute to the global pursuit of sustainable development.

La Rose et al. v. *His Majesty the King:*

In this case a group of fifteen youth claimants, aged 10 to 19, in October 2019 in Canada, filed a lawsuit against the Canadian federal government, claiming that it contributed to the dangerous climate change. The claimants claimed that the youth are already being harmed by climate change and the federal government is violating their rights to life, liberty and security of the person under section 7 of Canadian Charter of Rights and Freedoms for failing to protect essential public trust resources. The youth claimants also allege that Canada's conduct violates their right to equality under section 15 of the Charter, since youth are disproportionately affected by the effects of climate change. They are asking the government to prepare and implement a plan to reduce Canada's greenhouse gas emissions emissions, decarbonize Canada's energy system, and transition

away from fossil fuel reliance in ways that are credible and based on the best available science.

However, in October 2020, a Federal Court judge ruled to dismiss the lawsuit, opposing that the claimants' assertions of Canada's infringement of their rights under the Charter of Rights and Freedoms lack justifiability and fail to establish a reasonable cause for action. The judge upheld that the claims presented "an overly broad and unquantifiable number of actions and inactions on the part of the Defendants."

The claimants proceeded to appeal, claiming that the judge had made an error in dismissing their claims. Subsequently, they submitted their opening brief, opposing that the lower court's October ruling had incorrectly invalidated their claims. Fast forward to February 14-15, 2023, the legal representatives of the youth claimants presented their case to a panel of Federal Court of Appeal judges through a virtual hearing. Over the course of two days, the attorneys advocating for the youth explained why the case should be granted the opportunity to proceed to trial. Currently, the youth claimants and their legal team await the court's ruling.

Nawahine v. *the Hawai‘i Department of Transportation:*
A similar situation occurred in Hawaii, where 14 young people filed a legal case against the Hawai‘i Department of Transportation (HDOT), HDOT Director Jade Butay, Governor David Ige, and the State of Hawai‘i. The youth claimants argue that the transportation system run by their state's Department of Transportation (DOT) is causing substantial damage to their communities due to the high levels of greenhouse gas emissions. They believe this situation is violating their rights as per the constitution and is affecting their capacity to live healthy lives both now and in the future in Hawai‘i. The claimants are requesting the court to state officially that the HDOT is violating this right and the state's public trust rule to protect and maintain Hawai‘i's natural beauty and all its natural resources.

Children born in 2020 will possibly encounter a dramatic increase, ranging from two to seven times, in extreme climate events such as heat waves, wildfires, crop failures,

droughts, and floods. Notably, Hawai‘i's per capita greenhouse gas emissions remain greater than those of 85% of countries globally. Furthermore, emissions coming from Hawai‘i’s transportation sector are on the rise and estimated to make up almost 60% of the state's overall greenhouse gas emissions by the year 2030.

The present status of the case indicates that Hawaii's climate change lawsuit, led by the youth, is scheduled for trial in the upcoming summer of 2024.

2.3.5. ECOLOGICAL TRANSITION: YOUTH’S PERSPECTIVE

Nevertheless, it is fundamental to acknowledge that not every young person aligns with the environmental advocacy narrative. In fact, a substantial portion of the younger population remains uninformed about the critical issues affecting our planet, particularly in regards to the ecological transition. While some are passionately engaged, a significant number lack awareness. There is a clear distinction between older and younger generations in their outlooks toward the ecological transition. This contrast demonstrates how each generation views and reacts to the changing environmental context through their unique perspectives.

The ecological transition refers to the process of shifting from traditional, resource-intensive practices and technologies to more sustainable and environmentally friendly alternatives. It includes moving away from fossil fuels and adopting renewable energy sources, reducing waste and pollution, and adopting more sustainable consumption and production patterns. While various facts and figures highlight the importance of this transition—for instance, approximately 85% of the world's energy is sourced from combustible fuels with consequences like pollution, the release of hazardous chemicals into water bodies, habitat degradation, and other environmental impacts—it is crucial to note that many individuals, both from older and younger generations, may not have a complete understanding of these details. The perception of the ecological transition can be affected by a lack of accurate information, misconceptions, and different levels of awareness regarding the complexities of this critical shift.

These next paragraphs aim to explore how different generations perceive the ecological transition. This discussion delves into how the older and younger generations interpret and understand the ecological transition's scope, challenges, and implications. These perceptions can vary widely, influenced by factors such as cultural context, educational background, exposure to media, and personal experiences. By examining the interplay of these perspectives, these next paragraphs seek to highlight the different ways in which the ecological transition is perceived by different generations, and how these perceptions may impact our collective efforts toward a greener future.

Notably, the older generations tend to have a higher level of concern regarding the important shift from fossil fuels to renewable energy sources. On the other hand, the newer generations, particularly Generation Z, often feel that such transition has already taken place. This perception might stem from the growing significance of renewable energy sources in the contemporary energy landscape, such as solar power, electric vehicles, wind energy, energy storage, hydroelectric power, geothermal energy. From the viewpoint of Gen Z, it can feel as if the ecological transition, meaning the pivotal move from using oil and carbon to using more sustainable and cleaner energy alternatives, has become a reality.

The question that follows is whether this perception is truly aligned with the current status of the transition or if it might be overlooking the complexities of the shift towards more environmentally friendly practices. This highlights the need for a nuanced examination of both the prevailing sentiment that the youth has and the actual progress toward a greener future.

While younger generations may feel that the transition to renewable energy has already occurred due to the growing visibility of such technologies, the reality is more nuanced. The transition from fossil fuels to renewable energy involves complex challenges such as technological advancements, regulatory changes, infrastructure development, and a shift in societal behaviors. It is important to recognize that while renewable energy sources have gained visibility and popularity, they have not entirely replaced fossil fuels in all sectors and regions. Some industries, transportation systems, and energy grids still

heavily rely on non-renewable sources. The idea that the transition has already happened may lead to complacency or underestimation of the work that remains to be done. Achieving a greener future requires sustained and consistent efforts to overcome various barriers, including economic considerations, technological limitations, and political dynamics.

2.3.6. SURVEY

Therefore, in order to gain a deeper understanding of how different generations perceive the ecological transition, I conducted a survey, with 18 questions, to explore the viewpoints of various age groups. This survey aimed to reveal insights into whether the perception of the ecological transition aligns with the actual progress and complexities associated with this shift. By analyzing the responses of participants from different age groups, including both older and younger generations, I aim to show whether the perceived "completion" of the transition to renewable energy accurately reflects the complex reality of the ongoing change. This examination will help provide a more comprehensive picture of how different generations perceive the ecological transition.

The survey gathered 50 insightful responses. They represented a wide range of ages, including 18-29, 30-44, 45-54, and 55-64 age groups. This age-diverse dataset allows us to explore how different generations perceive this critical shift and brings depth and context to our analysis. The majority identified as female (76%), with a significant male representation (22%) and non-binary participants (2%). Educational backgrounds varied, with 52% holding Master's degrees, 36% having Bachelor's degrees, and 10% completing high school, while 2% held Ph.D. degrees. Geographically, respondents came from multiple countries, across Europe, Asia, Africa, and the Middle East, including Cyprus (46%), Italy (16%), Luxembourg (14%), Greece (12%), the United Kingdom (4%), France (2%), Morocco (2%), Kuwait (2%), and Pakistan (2%). This global representation offered diverse perspectives.

In the initial question regarding the ecological transition, participants were asked to rate their familiarity with the concept on a scale from 1 to 5. Most respondents (35 out of 50) reported moderate to high levels of familiarity, regardless of age. Younger participants

showed stronger familiarity, with 16 in the 18-29 age group. Only a small minority (4 out of 50) were "not familiar at all," while 7 respondents indicated they were "slightly familiar." Overall, participants demonstrated foundational knowledge of the ecological transition, providing a solid basis for survey exploration.

In the next survey question, participants rated their familiarity with the transition from fossil fuels to renewable energy on a scale of 1 to 5. Impressively, 34 out of 50 respondents placed themselves in the 'Quite Familiar' and 'Moderately Familiar' categories, indicating widespread understanding across age groups. Younger respondents leaned more towards the 'Quite Familiar' category, while older participants also showed significant familiarity. Moreover, 9 respondents, primarily aged 18-29, chose 'Very Familiar.' Only 7 participants selected 'Slightly Familiar' or 'Not Familiar at All,' indicating minimal awareness gaps.

Regarding beliefs about the stage of the global transition from fossil fuels to renewable energy, participants showed diverse opinions. The largest group (29 out of 50) chose '4,' indicating they believe the transition is in its early stages. This view was consistent across age groups. Meanwhile, 15 participants selected '3,' expressing uncertainty about the transition's stage, representing different age brackets. Additionally, 6 respondents picked '2,' signifying their belief that the transition is currently happening. These responses reflect varying perceptions of the transition's progress, emphasizing its complexity and broad demographic impact.

Participants who expressed a belief that the transition to a more environmentally friendly way of living is already happening (choosing '2' in response to the previous question) provided insightful reasons for their convictions. The respondents noted that they observe tangible evidence of this transition in action, such as the increasing adoption of renewable energy sources, a surge in discussions and awareness surrounding environmental sustainability, and substantial financial investments in eco-friendly initiatives. Government support through subsidies for renewable energy development was also mentioned as a driving force behind the transition. Additionally, the growing popularity of electric vehicles and the widespread use of photovoltaic technology were cited as

tangible manifestations of the shift towards environmental consciousness. These varied and informed perspectives show the multifaceted nature of the ongoing transition to a more sustainable and environmentally friendly way of living.

The next question explored participants' perceptions of how well renewable energy sources are integrated into our energy systems, rated from 1 ('Not integrated at all') to 5 ('Very integrated'). Three respondents (2 in the 30-44 age group and 1 in the 45-54 age group) viewed renewable energy sources as moderately integrated, indicating room for improvement. The largest group (21 individuals) rated integration as partially integrated, with this belief spanning various age groups. Another substantial group (20 individuals) saw renewable energy sources as minimally integrated, indicating limited adoption. A smaller group (5 individuals) believed renewable energy sources were 'Not integrated at all.' This indicates that they perceive a significant lack of integration and adoption of renewable energy sources in our energy systems. While the majority sees at least partial integration, there are variations in how individuals from different age groups perceive this integration, ranging from moderately integrated to not integrated at all. This diversity in views reflects the complexity of the transition.

In the next question, participants rated their awareness of challenges in shifting from fossil fuels to renewables, aiming to measure public understanding of ecological transition complexity. Twenty individuals selected '3,' indicating 'Moderate awareness' among the general public. Twelve respondents chose '4,' perceiving the public as 'Quite aware.' Eleven participants picked '2,' indicating 'Slight awareness.' Five respondents believed the public to be 'Extremely aware,' primarily in the 30-44 and 18-29 age groups. Two participants felt the public is 'Not aware at all,' aged 30-44 and 18-29. These responses reveal that while the largest group sees the public as moderately aware, other participants hold differing opinions, with some perceiving higher levels of awareness and others perceiving lower levels.

In the subsequent question, participants rated public understanding of ecological transition complexity from 1 ('Not at all') to 5 ('Completely'). The majority (27 individuals) selected '2,' indicating 'Minimal understanding.' Fourteen respondents chose

'1,' suggesting the public 'Does not understand at all.' Eight participants picked '3,' perceiving 'Moderate understanding.' One respondent chose '4,' believing the public has a 'Good understanding,' and they were in the 18-29 age group. These results collectively indicate that the majority of respondents, spanning various age groups, believe that the general public has only a minimal understanding of the complexity of the ecological transition.

In the next question, participants rated the education system's performance in providing ecological transition information, from 1 ('Not a good job at all') to 5 ('Very good job'). Twenty-one participants saw it as 'Below Average,' a view spanning most age groups. Fourteen individuals rated it 'Not a good job at all,' a sentiment shared across age groups. Ten saw it as 'Average.' Only three believed it to be 'Above Average,' and two rated it as 'Very Good' (ages 30-44 and 18-29). The prevailing perspective is that the education system's performance is 'Below Average,' with some viewing it more positively.

The following question assessed participants' perceptions of the media's accuracy in depicting ecological transition progress and challenges, on a scale from 1 ('Very inaccurate') to 5 ('Very accurate'). A significant group of 23 found the media 'Slightly inaccurate,' across various age groups. Thirteen viewed it as 'Very inaccurate,' with representation from ages 55-64, 30-44, and 18-29. Another group of 11 chose '3,' indicating 'Neither accurate nor inaccurate,' across ages 45-54, 30-44, and 18-29. A smaller cohort found the media 'Mostly accurate' (ages 30-44 and 18-29). These responses show that most people believe that the media does not accurately portray the progress and challenges of the ecological transition.

For the following question of the survey, I asked the participants to elaborate on their perceptions of media portrayals concerning the progress and challenges of the ecological transition. Based on the participants' comments, it is evident that there are several common themes and issues related to how the media portrays the progress and challenges of the ecological transition. Many respondents expressed concerns about media biases, sensationalism, and conflicts of interest. They noted potential factors such as financial interests, political correctness, and a lack of journalistic expertise that could affect the

objectivity of media reporting. Additionally, participants highlighted the influence of political and economic factors on media coverage. They believe that authorities and financial interests may obstruct or shape the narrative regarding the ecological transition. Participants also indicated that mainstream media often provides inadequate or insufficient coverage of ecological transition topics, sometimes failing to link them to climate change. Moreover, they suggested that a lack of education on these topics, both among journalists and the general public, contributes to the issue. They feel that the media does not explain the ecological transition processes thoroughly, including recycling challenges, renewable energy materials, and the potential impact on communities. They also mentioned that certain aspects of renewable energy, like the environmental costs of wind turbines, are not adequately covered in the media. Some participants highlighted that media outlets tend to prioritize dramatic and negative events over gradual progress, potentially overshadowing positive aspects of the ecological transition. Finally, they remarked that media coverage can be selective, focusing on specific ecological transition aspects while neglecting others, like the regenerative approach. Overall, these responses highlight the complexity of media portrayals of the ecological transition. The concerns raised by participants suggest a need for more balanced and comprehensive reporting, alongside efforts to enhance public awareness and education on this critical issue.

The next question assessed participants' confidence in renewable energy sources' ability to replace fossil fuels on a large scale, using a scale from 1 ('Not confident at all') to 5 ('Very confident'). The largest group, comprising 18 individuals of various ages, showed moderate confidence. Seventeen participants expressed relatively high confidence in this transition, a belief shared across age groups. Eight respondents displayed modest confidence, while four individuals, spanning age groups, strongly believed in renewable energy sources. Three participants held some skepticism, opting for 'Somewhat Confident'.

When participants were asked about specific renewable energy technologies or initiatives that they consider particularly important in the transition from fossil fuels, a range of insightful responses emerged. Nuclear fusion was emphasized as a potential game-changer, dependent on successful control and implementation. Others stressed the

significance of regenerative energy approaches, pointing out that simply being 'renewable' might not be sufficient, as these technologies can still impact the environment. Recycling waste management was recognized as an integral factor of sustainable practices. Electric cars and photovoltaics garnered attention for their role in reducing carbon footprints. Participants also underlined the importance of technology aimed at reducing energy consumption and fostering awareness, especially starting with educational initiatives in schools. However, it was evident that certain renewable energy technologies held more prominence in participants' minds. Geothermal energy, hydropower, wind power, and solar power, including photovoltaic systems, emerged as some of the most popular and widely accepted choices. Additionally, seashore energy was highlighted for its potential to generate substantial energy while visually minimizing harm to the environment. Nuclear energy was also mentioned as an alternative to traditional oil sources. These diverse insights reflect a recognition of the multifaceted nature of the transition to renewable energy and the importance of various technologies and initiatives in achieving a sustainable future.

When asked about their specific concerns or doubts regarding the ecological transition and its inherent complexity, participants provided a range of thoughtful responses. One recurring theme was the difficult challenge posed by powerful industries that prioritize profits over the common good. The disposal of electric car batteries raised concerns, reflecting concern about the environmental impact of new technologies. Economic interests were seen as a crucial factor influencing decision-making, potentially impeding the transition. Global warming emerged as a prevailing concern, emphasizing the urgency of the transition process. Participants also expressed doubts about the pace of the transition, with some feeling that governments do not fully grasp the need for expediency. Regulatory gaps and inadequate coverage in education systems were cited as barriers to progress. Furthermore, concerns were raised about the side effects and nuances of the transition, such as the environmental impact of clean energy tools and the potential social implications of plant-based diets. Public awareness, or the lack thereof, was cited as a significant hurdle in achieving a successful transition. Participants emphasized the importance of the public understanding the ongoing transition, not just the results of past efforts. Other concerns included ongoing drilling practices, the cleanliness of the

transition, and the need for controlled placement of renewable energy installations to prevent ecosystem harm. Energy inefficiency, costs, and motivation from relevant authorities were additional points of concern. Overall, these responses indicate the concerns surrounding the ecological transition, ranging from environmental and economic to societal and educational, highlighting the need for comprehensive approaches to address these complex challenges.

In general, a prevailing sentiment among respondents is one of disappointment in the actions of authorities. Many participants expressed a deep concern that these entities prioritize financial gain over the common good and environmental sustainability. This recurring theme emphasizes the need for strong, ethical leadership and policies that genuinely reflect the best interests of citizens and the planet. It underscores the call for responsible, sustainable practices that prioritize long-term well-being over short-term profits. These insights from the respondents signal the importance of not only acknowledging these concerns but also actively addressing them in the pursuit of a successful ecological transition.

In conclusion, this survey has provided valuable insights into the diverse perceptions surrounding the ecological transition across different generations. The findings of the survey highlight the complex nature of these perspectives, emphasizing that age alone does not determine one's level of concern or awareness regarding this crucial transition. The emergence of individuals, with their belief that the ecological transition has already taken place, indicates the growing significance of renewable energy sources in our contemporary energy landscape.

However, it is clear that perceptions vary widely, transcending generational boundaries. While some participants expressed a belief that the transition is in its early stages, others feel it is already happening. This diversity in viewpoints underlines the complex nature of the ecological transition and the complex interplay of factors influencing public perception.

Furthermore, the survey revealed that a considerable number of respondents, especially among the younger age group, are moderately familiar with the challenges and complexities associated with the shift from fossil fuels to renewable energy sources. This demonstrates a foundational awareness, suggesting that many participants possess a solid understanding of the ecological transition.

In essence, the survey results challenge the notion that generational gaps alone dictate perceptions of the ecological transition. Instead, they point to the importance of considering factors such as education, exposure to media, and personal experiences in shaping these perspectives.

2.4. THE EDUCATION SECTOR OF SDGS

The education sector of the SDGs is highly relevant to youth as it directly impacts their present and future. Through education, youth acquire the technical, vocational, and life skills necessary for employment and personal development. Education empowers youth by expanding their opportunities and choices. It promotes critical thinking, problem-solving, and decision-making skills, which are vital for personal and societal progress. Informed and educated youth are more likely to participate in their communities and advocate for positive change. This sub-chapter places particular emphasis on the following goals: SDG 4: Quality Education and SDG 5: Gender Equality. SDG 4 aims to ensure inclusive and equitable quality education for all and SDG 5 helps break down gender disparities by providing girls and young women with equal access to education, empowering them to challenge gender norms and contributing to more equitable societies.

2.4.1. GOAL 4: QUALITY EDUCATION

The aim of this goal is to guarantee accessible and fair access to quality education while providing educational opportunities for everyone. Goal 4 is dedicated to eliminating any educational disparities and unjustness when it comes to accessibility and quality aspects of education. It acknowledges that it is essential to offer quality education to everyone, with special attention to vulnerable groups. These include underprivileged children,

children living in rural areas, people with disabilities, indigenous people, and refugee children.

This goal is also important as it is intertwined with the rest of the SDGs. It forms a cohesive cycle in which equipping children with the appropriate tools to reach their full potential, transforms them into productive adults capable of contributing to and strengthening their communities. Consequently, this process disrupts the cycle of poverty. Education serves as a catalyst for achieving upward socioeconomic advancement.

Furthermore, the critical importance of this goal is further emphasized when considering the global challenges faced in recent times. During the COVID-19 pandemic, approximately 1.6 billion children experienced disruptions in their education due to school closures. Averaging 199 days of either full or partial closures between March 2020 and September 2021, the pandemic caused substantial setbacks on the learning path of students worldwide. Consequently, the typical student now stays behind their anticipated learning levels by about a year, with even more prominent setbacks found in disadvantaged countries. This highlights how important education is for maintaining stability and advancing society. It shows that education plays a crucial role in keeping society functioning and moving forward, particularly during unexpected and challenging situations.

According to the World Bank, a nation's economic status is closely connected to the learning difficulties among its children. The start of the COVID-19 pandemic has led to a rise in the number of children facing learning challenges, further aggravating the disparities between different countries. During school closures, high income countries had greater opportunities to shift learning to online platforms, because of their improved internet access, electricity, and more availability of computers and tablets. Unfortunately, in over 95 percent of low-income countries, less than half of the population can access the internet, making it challenging to switch to online education and reach most children. This is due to limited connectivity in low and middle-income nations. Consequently, in these low-income countries, remote learning often relied on radio broadcasts, without direct teacher supervision. In these regions, the percentage of children facing learning

poverty escalated from 57 percent in 2019 to an estimated range of 68 to 71 percent. The combined effects of the COVID-19 pandemic on education are projected to result in a potential reduction of $21 trillion in lifetime earnings for the current generation of students. In low and middle-income countries, the estimated total loss in lifetime earnings is around $11 trillion, leading to an individual decrease in annual income of approximately $975. To counter these substantial losses, a strong recovery strategy is crucial.

As per the findings of the World Bank, one effective approach has been the reopening of schools. For example, in certain São Paulo municipalities, students who returned to in-person classes saw a remarkable 20 percent increase in test scores compared to those who did not. Additionally, student attendance significantly improved in schools that resumed in-person instruction sooner. Another example is a study conducted in the Indian state of Tamil Nadu which revealed that students faced learning setbacks equivalent to about two years in mathematics and one year in language. However, by returning to school and engaging in a government-introduced remediation program, students managed to regain about two-thirds of these losses in just five months, equivalent to approximately 15 months in mathematics and 7 months in language.

An essential aspect to consider within the framework of SDG 4, which underscores the importance of providing equitable educational opportunities, is the issue of student debt. The pursuit of a college degree demands a significantly larger financial commitment today compared to previous generations. Consequently, more students and their families are compelled to turn to loans to access higher education, contributing to the ongoing growth of total student loan debt. For instance, as of June 2023, the United States witnessed a rise in outstanding student loan debt, which now is at $1.77 trillion, compared to $1.73 trillion in 2021, as reported by the Federal Reserve Bank of St. Louis' "Student Loans Owned and Securitized" statistics. This growing burden of student debt has profound implications for individuals' access to quality education and their future financial well-being. The student debt crisis has a significant negative impact on the hopes and dreams of many young people. It is difficult for them to achieve their goals because of the financial burden and challenges associated with student debt. But it is not just

numbers; it is personal stories of recent graduates and their dreams weighed down by big loans. The long-term consequences are overwhelming, affecting everything from career choices and homeownership to the ability to start a family. Interest rates continue to climb which exacerbates the problem. In the United States, several students have candidly shared their personal experiences and emotions regarding student debt through the National Association for the Advancement of Colored People (NAACP), a civil rights organization. Sheila S., for instance, expressed the overwhelming disproportion between her debt and income, revealing that her $75,000 in student loans casts doubt on her prospects of ever owning a home. Likewise, Asia M. disclosed the challenges she faces in pursuing her dream of establishing a real estate business. Despite her job providing a decent salary, she finds herself living paycheck to paycheck and unable to store savings. The burden of a substantial debt exceeding $300,000 has left her and her husband in a financially insecure situation, even prompting concerns about starting a family. These personal stories shed light on the profound impact of student debt on individuals' lives and aspirations.

2.4.2. GOAL 5: GENDER EQUALITY

Gender equality, as encapsulated in SDG 5, is not merely a global goal but a profound necessity as it is a human right. Its relevance to the youth becomes evident when we consider the origins of gender disparities, which often begin at an early age. Goal 5 outlines a challenging plan in achieving gender equality and empowering women and girls worldwide. While the challenges faced by girls and boys in their early childhood might seem similar on the surface, gender inequalities progressively appear as children grow. In particular, adolescent girls often have to deal with society’s gender expectations. Expectations such as domestic work, societal pressure to marry early, heightened risks of teenage pregnancy, and horrible reality of sexual and gender-based violence. Additionally, women typically have limited decision-making power, and restricted access to financial resources. According to the World Bank, in reality, women, on average, possess only three-fourths of the legal rights related to economic opportunities that men enjoy. Unfortunately, these issues are not isolated incidents; they are global concerns. Shockingly, 650 million girls and women alive today were married as children, and over 200 million have suffered the trauma of female genital mutilation. The onset of the

COVID-19 pandemic has only worsened these gender disparities, disproportionately affecting the most marginalized children.

A notable example that highlights the prevailing gender disparities in domestic responsibilities, aggravated by the effects of climate change, is the task of water collection. Water fetching exemplifies how climate change amplifies traditional gender roles within households. Globally, one in four households lacks access to safe, in-home drinking water services. Consequently, fetching water becomes a time-intensive task, with nearly one-third of these households having to journey 30 minutes or more to procure water. This endeavor becomes even more difficult during droughts when groundwater levels decrease. Individuals responsible for water collection may need to cover greater distances and endure long waits to secure this essential resource. This was confirmed by a research study conducted in Uganda, which unveiled that individuals typically traveled an average distance of about half a kilometer to procure water, dedicating roughly 14 hours per week to this endeavor. However, during drought conditions, this distance doubled to approximately one kilometer, demanding an extended time commitment of approximately 16 hours per week. In all nations, men generally spend less time on domestic work compared to women. Consequently, the primary burden of collecting water typically falls on women. In roughly 4 out of every 5 households lacking piped water access, it is the women and girls who are entrusted with the task of fetching water. This situation leaves them with limited time for income-generating activities or pursuing educational opportunities. Additionally, the physical strain of transporting water can lead to adverse health effects, such as chronic pain and disability.

Another instance of gender inequality significantly affecting youth is child marriage. Despite the target set by SDG 5.3 to eradicate child marriage by 2030, this practice persists in numerous countries. Globally, one in five girls still enters into marriage before reaching the age of 18. Child marriage not only violates girls' fundamental human rights but also causes harmful consequences on their health and economic prospects. It restrains them from educational opportunities and isolates them from social networks, which can have adverse effects on their mental well-being. It contributes to a higher prevalence of adolescent pregnancy and childbirth, leading to increased health risks for young girls.

According to WHO, approximately 21 million young women between the ages of 15 and 19 residing in low- and middle-income countries (LMICs) become pregnant each year, with around 12 million of them giving birth. Tragically, pregnancy remains one of the leading causes of mortality among girls aged 15-19 in LMICs. Adolescent girls in these regions face a higher risk of childbirth-related health issues, including conditions like obstetric fistula. Moreover, they are more likely to experience poverty compared to their peers, which can lead to inadequate nutrition and overall health. Consequently, these factors significantly intensify the chances of fetal, perinatal, and maternal mortality and disability, by as much as 50 percent.

Significantly worth noting is Female Genital Mutilation (FGM), an extreme form of gender-based violence. It represents a specific form of violence against women and girls, constituting sexual assault, domestic violence, child abuse, human rights infringement, and a developmental obstacle that affects more than 200 million women and girls worldwide, leading to long-lasting and irreversible consequences. FGM encompasses all procedures involving the partial or complete removal of the female external genitalia or other injuries to female genital organs for non-medical reasons. This practice offers no health benefits but instead poses severe risks to women's health, including chronic infections, pain, menstrual problems, and childbirth complications. FGM has been perpetuated across generations, rooted in cultural norms and social traditions within communities. In some societies, FGM is viewed as a traditional practice that symbolizes a girl’s transition into womanhood and marriage, while in others, it is believed to ensure premarital virginity and marital fidelity. The international community has recognized and condemned FGM as a violation of women's fundamental human rights.

FGM has predominantly been practiced in regions of Western, Eastern, and North-eastern Africa, as well as in select countries in the Middle East and Asia. Notably, FGM has also been identified in Western countries including the United Kingdom, United States, and Canada. Data from Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS) reveals that in over 10 countries, more than 65 percent of women between the ages of 15 and 49 have undergone FGM. Additionally, statistics show that women residing in rural areas are more likely to undergo FGM compared to their urban

counterparts in most countries with available data. For instance, in Egypt, over 90 percent of women in rural areas have experienced FGM, in contrast to 77 percent of women in urban areas. Moreover, research by the World Bank indicates that the majority of women undergo FGM before the age of 15, with some countries reporting that over 50 percent of women experience this practice before the age of 5.

2.4.3. YOUTH'S RESPONSE

The youth have been actively addressing educational challenges and advocating for change through their engagement with the Economic and Social Council (ECOSOC) Youth Forum. This forum, organized annually by the President of the Council, has emerged as a crucial platform for young individuals to participate in policy conversations within the UN. Here, they share their ideas, solutions, and innovations to make substantial contributions to these discussions. The ECOSOC youth forum plays a pivotal role in ensuring that their voices are heard and respected. This is especially noteworthy, as young people often struggle with the challenge of being taken seriously in decision-making processes. The forum's recognition of the importance of youth perspectives and its commitment to giving them a genuine space for dialogue and influence is a significant step towards acknowledging the value of youth contributions in the global pursuit of sustainable development.

Serving as the primary global platform for youth to voice their ideas, the ECOSOC Youth Forum plays a key role in allowing representatives from youth-led and youth-focused organizations, youth advocates, and other stakeholders to engage in meaningful conversations with Member States. It provides a space to explore avenues for youth development and active involvement. Participants engage in brainstorming sessions, interactive panel discussions, and exchanges with Member States on topics aligned with the annual themes of ECOSOC and the High-Level Political Forum. Additionally, various gatherings within the Forum, including side events, facilitate extensive interactions among participants, encouraging discussions on different subjects. Recognizing the great potential of the ECOSOC Youth Forum, the Secretary-General has acknowledged that the High-Level Political Forum could benefit valuable insights from the forum's discussions, as they encompass cross-cutting issues within the context of the SDGs.

The Youth Forum was first organized in 2012, originally as a half-day conference on “Creating a Sustainable Future: Empowering Youth with Better Job Opportunities”. The success of this event and the growing demand from young individuals for active engagement led to its expansion into a full-day meeting in 2013. Subsequently, the Youth Forum evolved into a two-day gathering. Since 2014, the forum's themes have been aligned with internationally agreed development goals, encompassing the MDGs and the 17 SDGs. The primary focus is the role of youth in the monitoring, reviewing, and implementing the Agenda and achieving the SDGs. Within this context, the Youth Forum also serves as a space to address the specific challenges faced by youth and explore their contributions to attaining the youth-specific SDG targets. Participation in the forum is by invitation, with youth participants selected through a collaborative effort involving National Youth Councils, regional youth organizations, and youth-led or youth-focused organizations and networks.

2.5. THE HEALTH SECTOR OF SDGS

The health sector of the SDGs, particularly Goal 3 which focuses on "Good Health and Well-being”. SDG 3 aims to ensure healthy lives and promote well-being for all at all ages. This goal is highly relevant to youth in several ways such as healthcare access, mental health, substance abuse, and reproductive health. Generation Z has become more health-conscious due to access to information and wearable technology. However, the youth, especially Generation Z, is notably outspoken about mental health. This age group faces significant challenges in this area, with many young individuals struggling with issues such as anxiety and depression.

2.5.1. GOAL 3: GOOD HEALTH AND WELL-BEING

Goal 3 has a primary objective of ensuring that everyone, regardless of age, enjoys good health and overall well-being. It highlights the significance of health right from the early stages of life. This goal encompasses a wide range of health priorities, including reproductive, maternal, newborn, child, and adolescent health, as well as addressing both

communicable and non-communicable diseases. Furthermore, it advocates for universal health coverage and equal access to safe, effective, high-quality, and affordable medicines and vaccines. The aim is to minimize preventable diseases and premature deaths by setting specific targets that enhance the health of a nation's entire population. Additionally, Goal 3 emphasizes the importance of increased investments in research and development, healthcare financing, and the reduction and management of health risks.

Mental health issues are a growing concern, particularly among young people in the European Region, where over 10% of adolescents struggle with various mental health problems, with major depressive disorders being the most prevalent. This region also reports some of the world's highest adolescent suicide rates, contributing to the leading causes of death among young individuals, accounting for 17.6% of those aged 15–29 years. Furthermore, child maltreatment has far-reaching consequences, responsible for almost a quarter of the burden of mental disorders in this region. Shockingly, an estimated 18 million children suffer sexual abuse, and 44 million endure physical abuse in this area.

The global statistics are equally disheartening, with nearly 1 billion people worldwide living with a mental disorder, and in low-income countries, a staggering 75% of the people with disorder receive no treatment. Substance abuse claims nearly 3 million lives annually, and every 40 seconds, a person dies by suicide. Upsettingly, half of all mental health disorders manifest by the age of 14.

Humanitarian crises, such as conflicts and natural disasters, present additional mental health challenges, with rates of mental disorders doubling in such situations. Approximately 1 in 5 individuals affected by conflict is estimated to suffer from a mental health condition. The COVID-19 pandemic has further exacerbated the situation, disrupting or halting essential mental health services in 93% of countries globally, just as the demand for these services is increasing.

Tragically, mental health remains underfunded, with most countries dedicating less than 2% of their health budgets to address this pressing issue. Moreover, depression is projected to become the most economically burdensome disease in the next decade.

Despite some increases in funding, international development assistance for mental health has never surpassed 1% of all development assistance for health. According to UNICEF, mental health conditions are a substantial global burden for adolescents, affecting approximately one in seven individuals, totaling an estimated 166 million adolescents worldwide, underscoring the urgency of addressing mental health on a global scale.

2.5.2 YOUTH'S RESPONSE

In response to the pressing issue of mental health, the youth, particularly Generation Z, has proven to be a proactive force for change. They are vocal advocates for mental health awareness and are using various ways, including technology, to address this concern. Online platforms, such as social media and mental health apps, have become powerful tools for young individuals to raise awareness, share personal stories, and provide support to those in need. Additionally, many youth-led organizations and initiatives have emerged, focusing on mental health education, destigmatization, and policy advocacy.

In a research paper titled "The Wellness Quest: A health literacy and self-advocacy tool developed by youth for youth mental health" the authors highlight some common barriers that young individuals encounter when they are dealing with mental health problems. These barriers include concerns about the stigma associated with mental health issues, a preference for handling problems on their own, and worries about maintaining confidentiality. These concerns can deter young people from seeking help for their mental health difficulties. Mental health literacy, which involves understanding mental health symptoms, available support, and how to access help, is seen as an important factor in overcoming these barriers. Having better mental health literacy can lead to earlier help-seeking and potentially better outcomes. The paper also describes the mental health system as a complex "maze." People experiencing mental health difficulties often face emotional and social challenges while trying to navigate this system. For young people, especially those accessing mental health care for the first time, understanding the structure and services offered by the mental health system can be daunting and confusing. This difficulty in navigating the system contributes to a treatment gap, meaning that many young people who need help do not receive it. To address this issue and bridge the treatment gap, it is emphasized that involving young people in the design of interventions

and resources is essential. Their input can help create services that better meet the specific needs of young individuals. The authors in this paper provide an in-depth analysis about a health literacy and self-advocacy tool called the “Wellness Quest", designed to enhance health literacy and self-advocacy among young individuals seeking mental health treatment. Developed by a youth research team, the Wellness Quest project has a fundamental goal: to empower young people, shifting their role from that of a patient to an active partner in their mental health care journey. The youth research team conducted an extensive assessment of the Wellness Quest tool, involving five focus groups and an online survey. Thematic analysis was used to analyse the qualitative data, and descriptive statistics were used to explore the survey results. The overall assessment of the Wellness Quest was overwhelmingly positive, with participants expressing enthusiasm about its potential usefulness throughout their mental health treatment-seeking process. Participants particularly emphasized the importance of having information tailored to specific populations, including Indigenous communities, immigrants, refugees, and 2SLGBTQ+ youth.

One notable example of a youth-driven initiative is Jack.org, an organization in Canada that organizes nationwide programs and campaigns dedicated to raising awareness and promoting mental health among young individuals. Recognizing a gap in mental health advocacy programs tailored for youth in Canada, Jack.org was founded as a youth-led initiative with a specific focus on mental health promotion and prevention, targeting individuals aged 15-24. The core mission of Jack.org is to strengthen mental health literacy, combat stigma, and encourage proactive help-seeking behaviors. It achieves these objectives through three primary programs called “Jack talks”, “Chapters”, and “Summits”. Jack Talks are peer-to-peer mental health presentations that facilitate open and honest discussions among young people. Chapters are community-based, youth-led working groups that empower local communities to engage with mental health issues collectively. Summits are youth-led conferences that provide a platform for young individuals to delve into critical mental health topics. Additionally, Jack.org offers online resources designed to educate young people on how to effectively support their peers in times of need. In 2019, Jack.org made a substantial impact, reaching out to over 170,000 young individuals. Trained and certified speakers presented a remarkable total of 446 Jack Talks, and an impressive 87% of attendees reported that these presentations

contributed positively to their perceptions of mental health. This shows the influence of Jack.org in promoting mental well-being among Canada's youth.

2.6. CONCLUSIONS

In conclusion, this chapter has explored the multifaceted impact of the SDGs on the youth of our world. The social and economic sector, with its implications for well-being and prospects, significantly shapes the lives of young individuals, who often confront hard challenges such as unemployment and gender disparities. However, it is in their response to these challenges that the true potential of this generation shines. The youth have emerged as resilient advocates, creating campaigns and movements to address the problems head-on. Their collective energy and determination stand as a testament to their commitment to building a better world. Additionally, the environmental sector of the SDGs highlights the big impact of climate change on young people's futures. Climate change poses severe threats to their livelihoods. Despite these challenges, young activists worldwide have mobilized, taking to the streets and legal arenas to demand climate action. Lawsuits brought by youth against states exemplify their willingness to fight for their right to a sustainable future. Moreover, in the sector of education, the quality of learning and gender inequalities affect the present and future of youth. Their response is evident in initiatives like the ECOSOC Youth Forum, where young voices are amplified and their vision for equitable education is discussed. Furthermore, the health sector, with a focus on mental health, is a great example of the youth's resilience. They not only bear the burdens of mental health challenges but also lead campaigns to raise awareness and promote mental well-being among their peers. In all these sectors, the potential for influence by this generation is immense. They have shown that they are not passive beneficiaries of the SDGs but active, determined agents of change. Their innovative approaches, tireless advocacy and commitment offer hope and inspiration.

Moving forward, it is clear that the youth hold the key to addressing the global challenges enclosed by the SDGs. Their ability to drive change, coupled with their collective strength, promises a brighter future. Given the particular sensitivities and influence of youth, it is possible that some SDGs stand out as more likely to be achieved with their active involvement and advocacy.

CHAPTER III – THE POSITIVE AND NEGATIVE SIDE OF TECHNOLOGY

In the ever-evolving world of the digital age, technology has an influential impact in today's world. Digital approaches have the potential to address various research gaps within the SDGs by introducing new data sources and improving analytical capabilities. Notably, technology has brought about significant changes in agriculture, health, and environmental sustainability, enhancing the quality of our daily lives and enabling us to exercise our rights more effectively. However, it is essential to recognize that the impact of technology is not unilaterally positive. While it has the potential to drive progress, it also presents certain risks. For instance, the rise of electronic waste, or e-waste, presents a significant environmental challenge. Additionally, the ease with which misinformation can be spread in the digital age threatens to undermine the collective efforts of activists and advocates.

3.1. ADVANCEMENTS IN TECHNOLOGY

In the journal article titled “Digitalization to achieve sustainable development goals: Steps towards a Smart Green Plane”, the authors emphasize the pressing requirements outlined in the 17 SDGs to secure a sustainable and competitive future for our society. Consequently, they advocate for the innovative development of digital tools that can create, utilize, transmit, or access electronic data to support organizational activities aimed at achieving the SDGs. These tools, which actively contribute to the attainment of specific SDG targets, are characterized as constituting "digital sustainability." Digital sustainability represents an effort to develop and implement intelligent technologies that promote sustainable economic growth while considering and integrating the SDGs into their operations.

Agriculture: The authors continue to explain that the increasing global demand for essential resources like food, fiber, and clean energy is straining agroecosystems, leading to environmental changes on a global scale due to factors such as changing climate conditions, and extreme weather events. This poses a significant challenge in meeting the nutritional needs of the projected 9.7 billion people by 2050. The authors proceed to highlight the positive impact of digital technologies in agriculture. They emphasize how

these technologies are improving the sustainable management of agricultural resources, enhancing productivity, and ensuring livelihood security on a global scale. Tailored agricultural practices are in development, targeting specific crop varieties, land plots, and fields to ensure their sustainability. The significance of digital technologies lies in their role as essential tools for storing and analyzing the data generated by these successful agricultural methods. This digital approach helps in organizing and analyzing the information and data efficiently. The authors further expound that digitalization has revolutionized various aspects of agriculture, from initial assessments and planning to the end stages of product delivery and waste management. The authors examine in greater detail that digitalization enables real-time monitoring, accessibility through common devices like smartphones and computers, and consultations based on satellite and weather data. They mention that digital tools assist in optimizing agricultural practices, reducing production costs, and enhancing the nutritional quality of agricultural products. Geo-tagging, precision farming, and efficient post-harvest services are among the outcomes of this digital revolution. Various technologies, including remote sensing, smartphones, robotics, AI, genomics, and big data, contribute to achieving agricultural sustainability and aligning with the United Nations SDGs. The application of both hardware, such as sensors and drones, and software, like geo-mapping and computer imaging, is already in practice.

In this context, youth plays a crucial role. Many young farmers today are turning to technology and data to enhance their decision-making processes on the farm, rather than relying on traditional farming methods and the wisdom passed down through generations. They use technology to try and make sure they earn back the money they invest in farming and, hopefully, make a profit. Over the years, farms have become larger, with more land and more crops or animals. Managing these big farms is much more complicated than it used to be. It is not something one person or a family can handle on their own. They often need many full-time employees to help with the daily tasks. Today, these advanced tools and technologies can collect extensive data about the farm, including plant growth and animal well-being. This data can be analyzed and utilized to inform critical decision-making processes. In the past, digital maps that illustrated crop yields were a significant asset for farmers. However, in contemporary times, Gen Z farmers seek even more

detailed information into specific sections of their fields. This increased use of technology is both beneficial and challenging for Gen Z farmers. This is because farms are much bigger now and there is a lot of data to manage, which can be overwhelming. Gen Z farmers have to deal with a massive amount of information, and it can be a lot of work to make sense of it all. However, on the positive side, it helps them make decisions based on data rather than just their instincts. They can check what the computer thinks will happen before making a choice, which can be more reliable.

Smart technology offers an innovative approach to farming practices, appealing to both older and younger generations of farmers. This was explored in a study by Jui-Hsiung Chuang, Jiun-Hao Wang, and Chaoyun Liang, which assesses the interest of young farmers in Taiwan in adopting Internet of Things (IoT)[1] systems for farm management, considering both environmental sustainability and their future in agriculture. The survey results revealed that young farmers were more inclined to embrace smart technology, particularly IoT systems, when they received strong organizational support, enjoyed a reasonable income, and had confidence in the technology. They were further interested when they perceived the technology as highly useful and user-friendly. Interestingly, those willing to invest more in this technology each month were more inclined to adopt it. These findings highlight the influence of financial capacity on technology adoption, echoing the earlier observations on willingness to invest in software and hardware. For young farmers, the decision to adopt new technologies, like IoT, is based on two factors: perceived utility and ease of use. To engage young farmers in adopting IoT in agriculture, the technology must effectively address real farming challenges, simplifying management and sales processes. Additionally, the reputation of system suppliers and the trust farmers have in these suppliers also impact technology adoption. The study confirmed that young farmers were more likely to adopt smart sensor technology when they had trust in IoT suppliers, believed in the quality of field-level data analysis, and were assured of data privacy. Overall, farmers willing to invest more in these systems and services exhibited a higher propensity for IoT adoption (Chuang et al., 2020).

[1] IoT is a network of interrelated devices that connect and exchange data with other IoT devices and the cloud

Health: In the realm of health, technology has revolutionized diagnostics, treatment, and healthcare delivery. Telemedicine and remote monitoring offer accessible healthcare services to even the most remote regions. Wearable devices and health applications empower individuals to actively monitor their health parameters, promoting proactive health management and early intervention. In recent years, health-care wearable devices have experienced remarkable success, largely due to the exponential growth of information technology. A noteworthy trend has emerged, with over two-thirds of Generation Z and millennial consumers actively using wearable healthcare technology to monitor their health. This places Generation Z at the forefront of utilizing technology for healthcare purposes, aligning closely with the SDG 3, which seeks to promote good health and well-being for all. This developing field of health-care wearable technology encompasses a wide range of smart products integrated into various wearable accessories. Well-known examples include the Apple Watch, Fitbit, Samsung Gear, and Mi Band wristbands. These devices contribute to the well-being of individuals and empower users with convenient tools for monitoring various health parameters, such as steps taken, distance travelled, calories burned, and exercise intensity. These smart technologies bridge gaps in healthcare access, providing equity and well-being.

As mentioned in the aforementioned journal article, digital health contains a variety of technological advancements, among them telehealth and telemedicine. Telehealth uses electronic information and telecommunication technologies to facilitate long-distance clinical healthcare, patient and professional health education, public health, and health administration. Conversely, telemedicine entails remote connections with healthcare providers for treatment via videoconferencing. The adoption of e-health solutions has steadily risen, gaining significant prominence during the COVID-19 pandemic as an efficient alternative for accessing healthcare services while adhering to social distancing measures. Telemedicine exceeds geographical barriers, democratizing healthcare access and reducing costs. It proves particularly instrumental in reaching out to rural patients, ensuring equitable healthcare delivery.

The implementation and normalization of e-health empower individuals to take charge of their health conditions, enhancing overall well-being and preventing future health

challenges. Notable applications of telehealth and other digital resources aimed at improving quality of life include telemonitoring to aid in diabetes care and management, telemedicine interventions for asthma control, telehealth support for heart failure patients, telemedicine services for cancer patients, and telemonitoring solutions catering to individuals with chronic obstructive pulmonary disease. These innovations not only enhance the quality of care but also extend the reach of healthcare, transforming how individuals engage with and manage their health.

Environment: Environmental protection has found a strong ally in technology, from environmental monitoring to artificial intelligence. Various technological advancements play a critical role in helping environmental processes. For instance, remote sensing and data analytics have emerged as powerful tools for monitoring deforestation, tracking wildlife populations, and assessing the impacts of climate change. Moreover, advanced technology has equipped climate researchers with a critical resource: climate data. This invaluable asset empowers researchers to make predictions, identify patterns, and formulate effective strategies for addressing climate-related challenges. Furthermore, The environmental monitoring procedure, used to assess changes in the environment, has witnessed a significant transformation due to the IoT. IoT technology now allows for more automated and real-time data collection and analysis. This innovation enhances the efficiency and effectiveness of environmental monitoring efforts, offering more accurate insights into environmental changes. Notably, Renewable energy technologies, such as solar and wind power, have played a substantial role in reducing our reliance on fossil fuels and reducing carbon emissions. Solar photovoltaic panels, in particular, provide a sustainable energy source that is both clean and inexhaustible. They generate electricity without pollution and greenhouse gas emissions, making them a crucial component of sustainable development efforts. Their capacity to produce energy without contributing to environmental degradation makes them a clean and viable solution for combating climate change. Also worth mentioning is the Smart grid technologies which have developed to facilitate efficient energy distribution and consumption, contributing to sustainability in the energy sector. Smart grids intelligently integrate the actions of all users within an electricity network, optimizing electricity supplies for sustainability, economic efficiency, and security. This approach aligns with the goals of modernizing

electricity networks to meet future energy needs while minimizing environmental impacts. Lastly, artificial intelligence (AI), notably artificial neural networks (ANN), has brought substantial benefits, especially, to the domains of energy production and water treatment. AI techniques offer a wide range of advantages in the management and operation of water and wastewater treatment plants. These technologies encompass modeling, monitoring, fault detection, and control, optimizing processes for enhanced efficiency and sustainability.

Where advanced technologies exist, it is heartening to witness the active participation and advocacy of the younger generation in shaping the trajectory of these innovations. A compelling example of this is the recent establishment of a UN Youth Advisory Group, consisting of seven dynamic young advisors. This group has been specifically chosen to serve as members, offering invaluable insights from the youth perspective on critical matters such as environmental protection, renewable energy, and climate action. Their involvement not only shows the UN's commitment to involving young voices but also highlights the immense potential of youth-driven initiatives in shaping sustainable solutions for the future.

Furthermore, another notable example is the United Nations Development Programme (UNDP)'s External Advisory Group on Energy Governance, which includes a diverse ensemble of six young leaders coming from different parts of the world. These inspiring individuals are actively collaborating to co-create the energy future. The primary objective of this advisory group is to assist UNDP in refining its Energy Governance initiatives tailored to the unique needs and challenges faced by different countries. This advisory group comprises a total of 23 experts representing different backgrounds, including parliamentary representatives, governmental bodies, academia, private sector entities, non-profit organizations, and other civil society groups. Most significantly, it incorporates the vital perspective of youth, emphasizing the UNDP's recognition of the crucial role young leaders play in guiding global development towards a more sustainable and equitable future.

3.2. CONSEQUENCES OF TECHNOLOGY

While technology has undoubtedly helped make notable advancements and transformative possibilities, it is crucial to remember that it also has its downsides. If not used carefully, technology can harm the environment, invade our privacy, and spread false information. This sub-chapter explores these negative consequences of technology, highlighting how technology's power can create challenges.

Environmental Impact:

While technology offers immense promise, its unrestrained adoption can lead to unintended consequences. The rapid pace of innovation has led to an increase in electronic waste (e-waste) due to the frequent replacement of gadgets. Digitalization, which involves using electronic devices like phones and computers, creates e-waste when these devices are thrown away. E-waste consists of electronic and electrical equipment, sub-assemblies, and components discarded by their owners. The short lifespan, limited repair options, and fast-changing technology turn a high proportion of electronic gadgets into waste upon the end of their usable life due to damage, non-working status, operational risks, or the availability of better alternatives.

As per the work authored by Suthipong Sthiannopkao and Ming Hung Wong in their article on handling e-waste in developed and developing countries, e-waste can be harmful because it contains dangerous substances like lead and cadmium. Sometimes, this e-waste is sent to developing countries for processing, which can be done in ways that harm people's health and the environment. China, India, Pakistan, and Nigeria have become the leading destinations. Modern electronic equipment relies on precious and special metals in its manufacturing. Because these metals have low concentrations in ores, extracting them through mining, smelting, and refining has significant environmental impacts. However, the article suggests that recycling these metals from discarded electronic equipment would have a much lower environmental impact compared to extracting them from ores. Notably, major e-waste-importing countries have laws that restrict the import of hazardous waste. Developed countries' policies in this regard have influenced similar policies in the developing world. However, developing countries have an established sector that depends on retrieving materials from e-waste, often using

methods harmful to the environment. This highlights a challenge in balancing economic interests and environmental concerns in e-waste management.

In line with the insights provided by the authors Rajesh Ahirwar and Amit K. Tripathi in their article on E-waste management, improper recycling of e-waste, particularly outside formal systems, can add a variety of organic and inorganic pollutants such as heavy metals to the ecosystem, adversely affecting human health. E-waste dumped into landfills or sold to peddlers often ends up polluting the environment through leaching into soil and groundwater and via emissions into the surrounding air, soil, and surface water. These toxic components contained in e-waste depend on the type of electronic and electrical equipment (EEE). E-waste recycling, without appropriate measures to limit environmental pollution, can lead to the release of these hazardous components and their derivatives into the environment during recycling activities, such as dismantling, size reduction, burning, or heating. To moderate these risks, it is important to manage e-waste with due diligence during the recycling and disposal processes. E-waste recycling, involving systematic collection and treatment for recycling useful materials, offers a valuable tool to minimize the growing heap of e-waste, supplement the shortage of some primary resources, and support the economy.

Referencing findings found within the Global E-waste Monitor 2020 by Forti et al., recent reports on global e-waste statistics have estimated a significant increase in global e-waste generation. Estimates suggest that only about 17.4% (9.3 Mt) of the global e-waste generated in 2019 has been collected and recycled in the formal sector, leaving the flow of the rest, 44.3 Mt (82.6%) of e-waste undocumented. The rate of generation of e-waste at the global level has increased substantially in recent years, reaching around 6% by 2019.

As outlined in the Global E-waste Monitor 2017 by Balde et al., the largest producer of e-waste on the planet is China, with an estimated production of 7.2 million tons. Another study estimates that the volume of e-waste is expected to reach 27 million tons by 2030.[2] China plays an important role in e-waste recovery, reuse, and recycling. Although there

[2] Zeng et al., 2017

is national legislation governing the collection and recycling of certain e-waste items in China, due to various socio-economic factors, the collection and recycling of e-waste are still dominated by the informal sector, often leading to harmful consequences for the environment and human health. Therefore, the development of the formal sector is crucial to reduce the environmental and human health impacts of improper and unsafe e-waste management.

Privacy: Concerns regarding data privacy and security also appear large. These concerns encompass a wide spectrum, ranging from digital privacy to cybersecurity, cyberspace, information, the Internet of Things (IoT), and health data. These concerns have raised profound questions about the protection of our personal information. It becomes apparent that understanding the nuances of data privacy and security is not merely an individual matter but a collective matter.

As explained by Jackie Craig in her research article “Cybersecurity Research—Essential to a Successful Digital Future”, in the digital world, information serves as its foundation, much like the essential building blocks of a structure. Ensuring the availability, privacy, and integrity of this information is important. Privacy issues have recently gained considerable attention due to numerous high-profile instances of data breaches that exposed individuals' personal details to the public. In our digital age, people routinely share personal information, including photographs, on online platforms. Furthermore, individuals frequently share information, whether deliberately or unintentionally, to online service providers. These providers employ this information to tailor their services through recommender systems, which personalize user experiences. Analyzing shared information can provide insights into an individual's preferences, social connections, lifestyle choices, and daily routines.

Furthermore, cyberspace, which is the conceptual environment in which communication occurs over computer networks, represents a continually evolving realm offering capabilities that are unmatched by other means. In today's interconnected world, governments, organizations, and individuals increasingly rely on cyberspace for communication, collaboration, and the provision or utilization of services. Terms such as

e-commerce, e-learning, e-research, and e-health have become commonplace, reflecting the integration of digital technologies into our daily lives. Devices equipped with embedded controllers are on the rise, marking the start of the IoT period. Projections suggest that approximately 20 billion devices will be interconnected by 2020. This trend has given rise to the concept of smart cities, where the vision encompasses remote monitoring and management of vital infrastructure, public buildings, transportation networks, businesses, and residences. Already, smart energy meters, home security systems linked to mobile devices, the prospect of autonomous vehicles, and the emergence of smart city initiatives demonstrate the growing influence of IoT technologies.

However, as suggested in the research article "Cybersecurity Convergence: Digital Human and National Security",[3] in the absence of a comprehensive legal framework, the implications can be dangerous. Without a strong cybersecurity structure in place, policymakers often perceive cyber exploits as threats that spread fear, ambiguity, and skepticism within the world of information technology. To put it differently, the absence of effective cybersecurity measures raises concerns and uncertainties within the IT sector. The challenge for society lies in mastering the technologies used in cyberspace and proactively preventing their misuse, thereby revealing their full potential.

In this context, it becomes necessary to acknowledge that various actors, ranging from entities within a nation to transnational and regional forces, can challenge the ability of a sovereign government to ensure the security of its citizens. The article highlights a distinct challenge associated with cyberspace: unlike other issues governments typically face, such as economic development, terrorism, or border disputes, well-established procedures often exist for addressing these challenges or malicious activities. However, this is not the case in the world of cyberspace. Governments often lack a comprehensive approach to dealing with cybersecurity issues, and they may either be absent or follow the lead of global information and communications technology (ICT) companies focused on global business rather than national interests. The consequence of this gap between emerging cyber threats and government responses is evident in the form of security

[3] Reveron & Savage, 2020b

deficits, a topic frequently discussed in reports on insecurity in cyberspace. What makes these deficits particularly alarming is their direct impact on the safety and security of a government's population. For many individuals in developed countries like the United States, the most significant threat to their personal human security arises from cyberspace.

While cyberspace might be a relatively new tool, its applications are deeply rooted in a broader historical context characterized by policy failures. These failures have a tendency to react to events rather than proactively shape them, poorly defined objectives, unclear guidance, reliance on weakly supported assumptions, limited understanding of organizational capabilities, an inability to adapt organizations to new challenges, and excessive dependence on poorly managed contractors. These issues are symptoms of a more significant problem, namely, poorly designed policies. In other words, when it comes to utilizing cyberspace capabilities for national security, these challenges stem from inadequately formulated and executed policies.

Another domain where data keeps significant value is health. Health data, which holds personal and medical information, is increasingly being digitized and shared to enhance healthcare outcomes. However, this transformation also raises critical questions about data privacy, security, and ethical considerations. For example, as explained in the article titled “Health Data and Privacy in the Digital Era” by Gostin et al., individuals' health data, which includes information about their medical conditions, treatments, and other health-related details, is being collected, combined, analyzed, shared, and even sold in ways that are not well understood and are often not subject to strong regulations. While there are laws like HIPAA (Health Insurance Portability and Accountability Act) that protect health data in clinical settings, health insurance, and research, these regulations do not cover most health data on the internet. This means that private companies can collect and use health data for various purposes, including targeting consumers and patients based on profiles created from data obtained through user behavior tracking, data purchased from other sources, and predictive analytics. Unfortunately, there are significant gaps and inconsistencies in health information privacy safeguards. Although technology allows for the collection and analysis of data for beneficial purposes, it also

suggests risks. Large-scale data storage can be vulnerable to cyberattacks, and there is risk of accidentally releasing sensitive data.

Misinformation: The spread of misinformation has become a notable concern in modern times, with technology and digitalization playing a central role in this context. Notably, the rise of social media, the frequency of clickbait, the circulation of fake news, and the lack of media literacy, all contribute to the spread of misinformation. Social media platforms especially have become major sources of news and information for many people. However, these platforms are also the reason for the rapid dissemination of false or misleading information. The algorithms that determine what content users see can sometimes prioritize sensational or misleading information because it generates more engagement. Frequently, exposure to such content, including Generation Z, can affect individuals' critical thinking abilities and their ability to distinguish fact from fiction.

In particular, while Generation Z has considerable power in spreading news and awareness through technology, they are also susceptible to misinformation. Their active involvement in online communities, along with their strong role in sharing information, whether that is news, opinions, or social causes, is undeniable. Yet, the digital age presents a significant challenge to Generation Z as they struggle with the issue of misinformation. Misinformation can be concerning due to its propensity for emotional manipulation and misleading tactics, frequently used with the intent of discrediting particular political groups. The problem extends beyond misinformation, as Gen Z struggles to distinguish fact from fiction, even though they frequently use social media for news consumption. Statistics and real-world examples show instances where young individuals have fallen victims to misinformation. An example from Stanford University revealed that many Gen Z students could not differentiate between an advertisement and a news story, indicating their challenges in media literacy.

The societal consequences include the spread of rumours, divisions within communities, and disruptions to democratic processes. The potential harm misinformation can inflict on individuals cannot be underestimated; it ranges from emotional distress to misguided decision-making. While Gen Z is technologically adept, their ability to analyze

information on digital platforms is crucial to their understanding of political and societal issues. They primarily rely on the internet and social media for news, but despite the amount of information they encounter, they often lack a clear opinion or viewpoint on significant national issues, such as extrajudicial killings, the death penalty, and territorial disputes.

As per the findings of the journal article “Fake news, social media and marketing: A systematic review” by Di Domenico et al., the original purpose of social media platforms was to facilitate connections between friends. However, they have evolved into significant channels for information and news production and exchange. Unfortunately, there has been an extensive spread of misinformation, often referred to as "fake news," through social media channels in recent years. The potential effects of fake news on companies and consumers are quite severe. For consumers, fake news generates confusion and skepticism regarding their prior knowledge. It can embed misleading beliefs in individuals, influencing their decisions based on these false beliefs. The dissemination of fake news on social media involves human agents, both knowingly and unknowingly. These agents can be categorized into two distinct groups: malicious and benign. Malicious users knowingly share false content, often driven by political or ideological motives, and some are even paid to propagate specific content. The second group, the benign users, unknowingly share false information, believing it to be true. Social media users are highly influenced by the actions of others, such as sharing, liking, and commenting on content. This social influence significantly impacts individuals' attitudes toward misinformation and their intention to engage with fake news. Exposure to discussions about fake news in the media negatively affects individuals' trust in media and their ability to differentiate between real and fake news. This confusion can lead to doubts about the accuracy of their prior knowledge and reliance on inaccurate information. As a result, people make decisions and take actions based on this incorrect knowledge, with potential consequences in various domains, including politics, health, finance, and marketing. Furthermore, this article’s review found that the success of fake news relies on its perceived credibility and trustworthiness. Creators of fake news achieve this by strategically presenting fake content, a phenomenon termed "fabricated legitimacy." This tactic involves mimicking legitimate news sources, adopting the same

formats, fonts, and colors as authentic news, and addressing topics covered by mainstream media. They may also manipulate facts, such as images or details, to make the content appear more credible.

3.3. POLICY RECOMMENDATIONS

It is fundamental to consider policy measures that provide a delicate balance between harnessing the positive potential of digital innovation and mitigating the associated challenges. In this context, the presentation of a comprehensive set of policy recommendations becomes essential. These recommendations are designed to maximize the beneficial impacts of technology, particularly among the younger generation, while addressing concerns related to cybersecurity, data privacy, and responsible technology use. These recommendations advocate for proactive government involvement, user empowerment, global cooperation, and transparency in the digital sphere. By adopting these policies, governments can shape a technology-driven environment that protects public interests and ensures the responsible utilization of digital resources.

Governments should play an active role in cybersecurity by formulating and implementing comprehensive policies. These policies should bring together various stakeholders, including technology companies, to ensure the security of digital environments. Governments should also consider regulating information and technology products similarly to how they regulate other consumer goods. This includes setting standards for security, privacy, and user data protection. Such regulations should ensure that products do not compromise users' security (Reveron & Savage, 2020c). In addition, governments could support research and development efforts aimed at improving the security and privacy of digital technologies. They could also provide financial support and subsidies to the private sector and development partners. This includes funding initiatives related to cybersecurity, data protection, emerging technologies, and energy-related projects (Uddin et al., 2021).

Another noteworthy recommendation which was suggested in the article “Health Data and Privacy in the Digital Era” by Gostin et al., is that companies and platforms that collect personal health information should have transparent and comprehensible terms of

service. This ensures that users can make informed choices about sharing their health data. Clear language and transparency in terms of data usage can help protect users' privacy and promote informed consent. Users should readily understand when companies, researchers, or clinicians seek access to their personal health information. Empowering users with knowledge about how their data will be used and giving them control over the data they share can enhance trust and privacy in the digital space.

Equally important is creating effective and well-thought-out laws and regulations for technology, particularly the IoT, which requires careful consideration. It should involve both international lawmakers and input from private companies to address specific needs and remain adaptable. The legislation should cover various aspects, including the right to access information, rules to limit or control IoT device usage, regulations regarding IT security, provisions that promote the responsible use of IoT devices, and the formation of a task force dedicated to researching and addressing legal issues related to IoT technology (Weber, 2010b). Furthermore, another great recommendation would be the integration of existing healthcare systems with IoT-based medical systems. These systems can transform medical check routines from hospital-centric to home-centric, offering benefits such as real-time monitoring, remote medical assistance through smart mobile applications, end-to-end connectivity, affordability, and critical situation tracking and alerts. Storing all the medical data gathered from IoT devices on systems such as blockchain[4] can enable healthcare organizations and patients to easily manage them in a secure, trusted, transparent, accessible, and traceable manner. By incorporating these policies, governments can harness the potential of IoT technology while ensuring public safety and responsible usage (Yaqoob et al., 2021).

3.4. CONCLUSIONS

Technology plays a dual role in the modern world, offering both opportunities and challenges. It has brought about substantial advancements in various fields, from agriculture to healthcare, environmental protection, and digital infrastructure; advancements such as telemedicine, remote sensing, and artificial intelligence. These

[4] Blockchain is an emerging and revolutionary decentralized technology with the capacity to fundamentally change, reshape, and how data is managed within the healthcare sector.

advancements have contributed significantly to monitoring deforestation, tracking wildlife populations, and tackling climate change. However, this progress has also raised concerns, such as electronic waste, digital privacy, cybersecurity, and the spread of misinformation. The rapid pace of innovation, for instance, has led to the spread of e-waste as gadgets are frequently replaced. Furthermore, concerns related to data security, encompassing issues of privacy and cybersecurity, have surfaced due to the vast accessibility and openness of large data sources. While these obstacles are undeniable, they should be viewed not as impossible obstacles but as opportunities to develop innovative solutions that can advance sustainability through digital means.

The policy recommendations outlined earlier in this chapter serve as a guide towards utilizing the power of technology for sustainable development, emphasizing the need for inclusive policies that engage both the younger and older generations. Furthermore, it is paramount for individuals, irrespective of age, to acquire the skills necessary for responsible technology usage. Media literacy and critical thinking skills must be taught to empower individuals in navigating the vast digital world. This is particularly important for Generation Z, who are both powerful communicators and potential targets of misinformation. As key contributors to the digital realm, Generation Z plays an essential role in shaping a more informed and resilient digital society. While the challenges of misinformation and technology integration into sustainable development are significant, they are by no means impossible or unsolvable. With concerted efforts at the policy, educational, and societal levels, we can take advantage of the potential of technology to address the complex issues facing our world today and empower the youth, especially Generation Z, to be responsible digital citizens and drivers of positive change.

In conclusion, finding the delicate balance between sustainability and digitalization is fundamental. These two realms, while capable of complementing each other, also carry the potential for harm. Therefore, there is a pressing need for further research on how to utilize their benefits while minimizing their negative impacts. Digitalization offers powerful tools that, when exercised judiciously, can promote sustainability and equal access to resources and services. However, we must remain cautious in addressing the challenges associated with electronic waste and data security. These challenges should

not discourage us but motivate the development of practical solutions that enable the responsible use of technology in tackling sustainability challenges.

CHAPTER IV – CONCLUSION

In this chapter, the thesis brings together the key threads of the exploration into Generation Z's role in the pursuit of the SDGs and the big influence of technology on their engagement with these global imperatives. The aim is to provide a comprehensive overview of the findings.

The thesis started by examining the essence of the SDGs – their origin, significance, and global relevance. The broad scope of these goals and their multifaceted implications for the world's future was explored. It explained that these goals constitute a universal call to action aimed at eradicating poverty, preserving the environment, and fostering global peace and prosperity by 2030. They succeeded the MDGs, which were a set of eight international development objectives that sought to combat extreme poverty by 2015. The transition to the SDGs was initiated following the Rio+20 summit in 2012, where an Open Working Group was tasked with drafting these new sustainable development goals. Furthermore, it expounded that the SDGs consist of 17 goals, 169 targets, and over 230 indicators, designed to promote global peace and prosperity while recognizing the interdependence of various development aspects. Four fundamental principles underpin these goals: integration, universality, inclusivity, and the commitment to leave no one behind.

In addition, it went on to mention that while organizations worldwide are working diligently to achieve the SDGs, they face several challenges. These include instability stemming from international conflicts, the need to adapt programs to local contexts during implementation, and governance issues, particularly the political will required to transform development programs into sustainable, long-term practices.

Subsequently, the central players in this study - Generation Z - were put under the spotlight. Their unique relationship with the discourse on human rights and their positioning as both advocates and beneficiaries of the SDGs were discussed. The study mentioned that the involvement of youth in achieving the SDGs is highly significant due to the global population's predominantly young nature. Notably, it continued by saying that the youth contribute to community resilience and progress through various means,

including optimizing sustainable development policies and offering critical and objective assessments of government decisions. They can raise awareness about socio-economic and environmental issues through social media and activism, leading change and influencing public action. Generation Z, especially, has been significantly influenced by technology advancement and social justice movements. They have grown up with easy access to vast information through smartphones and the internet, leading to concerns about online threats like cyberbullying and a heightened focus on privacy. Despite witnessing global events such as economic instability and violence, Generation Z believes in their power to create positive change. They exhibit a strong commitment to social justice, equality, and human rights. They have a collective "we"-centered mentality, focusing on the well-being of all.

Moreover, it mentioned that the level of engagement and commitment to sustainability and the SDGs can vary among different regions and populations. Younger generations, particularly millennials and Generation Z, are passionate about sustainability due to exposure to educational campaigns, accessible information, and social media. They actively participate in movements, advocate for policy changes, and adopt sustainable lifestyles. However, it mentions that it is essential to recognize that older generations have also contributed significantly to sustainable development. Many foundational environmental and social movements were initiated by previous generations. Achieving the SDGs requires collaboration across generations, leveraging the unique perspectives, knowledge, and skills of each group. Intergenerational cooperation is crucial for effective progress.

Additionally, it was noted that Generation Z exhibits a heightened sensitivity to human rights' extensive impact on individuals and communities due to their equitable upbringing. This generation embraces a proactive approach, believing that the responsibility for problem-solving lies not only with institutions but with every individual. They emphasize the urgency of addressing societal problems and advocate for collective action.

The pivotal question of whether Generation Z's influence is confined to Western nations or extends far beyond was answered, illustrating how their impact transcends geographical boundaries. While they encounter challenges, such as skepticism and a lack of visibility, they remain resilient, challenging societal norms, and inspiring others to join their cause. Their influence extends beyond the digital realm to shape the physical world. It was found that their actions push the boundaries of social change and reform.

Furthermore, the research discussed that Generation Z's strong environmental sensitivity aligns with their active involvement in climate justice. They recognize the interconnection between human rights and environmental issues, advocating for policies to protect the planet. Climate change's severe consequences, especially on marginalized communities, motivate their action. Examples of youth-led climate activist movements like "Fridays for Future" and "Sunrise Movement" demonstrate their commitment. While some movements originated in Western countries, exceptional young activists worldwide, like Melati Wijsen, Vanessa Nakate, and Licypriya Kangujam, advocate for climate action. It also explained that besides environmental concerns, Generation Z champions identity and gender equality. They actively combat discrimination and inequality, advocating for marginalized communities, including LGBTQ+ individuals, people of color, and women's rights. However, their commitment extends to racial justice, with vocal protests against systemic racism, particularly after high-profile incidents of police brutality. Social media plays a vital role in their activism, providing platforms for resource sharing and organizing. Lastly it mentioned that Generation Z's values also encompass immigration, as they promote inclusion and tolerance. Their dedication to human rights reflects a deep understanding of the interconnectedness of social and environmental sustainability, aligning with the UN's 2030 Agenda.

The thesis continued by explaining that this generation values authenticity, individuality, and the power of their voices, using social media as a platform for self-expression, activism, and community building. Despite spending significant time on social media, Gen Z finds positive experiences in it, such as feeling more connected to friends, expressing creativity, finding support during tough times, and experiencing a sense of acceptance. As they continue to mature and take on more significant roles in society, Gen

Z's impact on technology and its intersection with social and environmental issues is expected to grow, making them a generation to watch closely in the coming years.

The second chapter of the thesis identified the SDGs that resonate most deeply with the youth, with a specific focus on the social and economic, environmental, education, and health sectors of the SDGs. Young people face a wide range of challenges related to these goals, such as limited opportunities, discrimination, environmental threats, and social injustices. The active engagement of Generation Z in the fight for these goals was highlighted, demonstrating how they use technology as a catalyst for change. Through grassroots initiatives, community projects, and global campaigns, young people directly address SDGs, utilizing technology to mobilize communities and drive positive change. Case studies and real-life examples were also provided which illustrate the significant impact of their technological endeavors.

Insights into how the youth and the older generations perceive the ecological transition were provided through a survey. The importance of their views in shaping the trajectory of sustainability efforts was underscored. The survey revealed several noteworthy insights. It became evident that the perception of where the world stands in its transition from fossil fuels to renewable energy sources varies significantly. While a majority viewed it as being in its early stages, a significant portion expressed uncertainty, and some believed it is already well underway. These varying perspectives, irrespective of age, emphasize the complexity of public perception on this topic. Furthermore, participants held diverse beliefs regarding the general public's understanding of the complexity associated with the ecological transition. While many perceived only a minimal understanding, a few respondents indicated higher levels of awareness. Additionally, concerns regarding media accuracy in depicting the progress and challenges of the ecological transition were voiced by several participants. Most believed that the media was slightly inaccurate or very inaccurate, emphasizing the need for improved representation in this regard. Respondents also expressed varying degrees of satisfaction with the education system's efforts in providing information about the ecological transition. While some rated it as average, the majority believed it to be below average in this aspect. In conclusion, the survey revealed a lot of perspectives among individuals of

different age groups. It challenges the notion that younger generations uniformly view the ecological transition as already completed. The perceived stage of the transition is influenced by various factors beyond age, including media portrayal, education, and individual awareness. These findings indicate the importance of tailored educational initiatives, effective media representation, and informed discourse. In essence, this survey contributes to the ongoing conversation about the ecological transition, highlighting the need for diverse perspectives and an inclusive approach to drive meaningful change.

The world of technology was then explored, showcasing its fundamental role in shaping the values, beliefs, and behaviors of Generation Z. The dual nature of this influence was analyzed, showing how technology can be both an enabler of sustainability and a contributor to challenges such as e-waste, cybersecurity threats, and the spread of misinformation.

Finally, the necessity for effective policy recommendations was explored. The critical role of governments in proactively engaging with technological advancements was emphasized. The research illustrated the need for new legal frameworks that consider the nuanced nature of technology's influence and encourage stakeholders' involvement in shaping these policies.

To draw a conclusion, this thesis has navigated the interplay of Generation Z, technology, and the SDGs. It has unveiled the great potential of this generation to be global change-makers while recognizing the hurdles they face. It is evident that Generation Z is not just a passive observer; they are the architects of the sustainable future. By celebrating the youth’s accomplishments and recognizing their challenges, society moves forward together, towards a world that aligns with the aspirations of the SDGs.

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