School with Class Foundation

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Digital Citizenship Handbook

Be Internet Awesome.

Lesson Plans
on Digital Citizenship
and Safety
for Secondary Schools

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Digital Citizenship Handbook

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ISBN

ISBN 978-83-67621-23-6

9 788367 621236

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the CC-BY 4.0 license.

This publication was developed
by the Fundacja Szkoła z Klasą/School
With Class Foundation as part
of the *Be Internet Awesome* program
supported by Google.org.

First Edition, Warsaw, 2024

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Foreword

It is commonly believed that the generation raised with new technologies knows how to navigate the virtual world effortlessly. Young people themselves also rate their digital skills quite highly. **However, the results of the international ySKILLS study conducted in 2021, 2022, and 2023 among 6,221 teenagers (aged 13–18) from six European countries show that young people often confuse operational (technical) proficiency with digital competencies.** While they generally know how to use modern tools and apps, they lack comprehensive knowledge about digital phenomena and key skills (as do many adults) – particularly in searching for information, evaluating its credibility, and creating content with respect for copyright laws.

The results of the study also highlight another problem: adolescents have insufficient communication and social skills. They do not know how to respond to criticism, aggression, and other negative content. Many struggle with managing their privacy on social media. Only a few are able to use digital technologies effectively to communicate, build lasting relationships, and engage in civic activities.

Why are Digital Competencies Important?

An insufficiently critical approach to Internet content can influence one's behavior and decisions in the non-digital world by fostering the spread of biases and unfounded simplifications upon which young people base their views. Unkind communication often leads to conflicts and negatively affects emotions and even mental health. Additionally, difficulty in managing the time spent online, combined with a lack of awareness, can contribute to device overuse and risky online behaviors associated with that, e.g., microtransactions, pornography, or sexting.

A New Approach to Digital and Media Education

All these challenges indicate that **developing digital skills** should be a key educational goal, not only among children but also among teenagers. This is why we have prepared this publication, which is part of the ***Be Internet Awesome*** program. As part of the program, we propose a new approach to digital and media education. It is based on the belief that digital competencies should be developed while building emotional awareness and agency, fostering creativity, a sense of belonging, social connections, and self-esteem. **In the program, we encourage viewing the Internet as one of the elements of life.** We build awareness of how the web affects our self-perception, beliefs, mood, and health, as well as our behavior and relationships. **We promote digital citizenship**, which includes knowledge of how the Internet works, its potential and pitfalls, the ability to use it safely, and leveraging it for personal

development. We believe that each of us contributes to shaping the digital community and has a real impact on it. The online environment depends on our responsibility, engagement, habits, and attitudes.

Universal Values

We believe that the same values should guide us both online and offline: prudence – being **smart** and valuing good sense; alertness – **staying alert**, valuing mindfulness and attentiveness; strength (assertiveness) – being **strong** and assertive; kindness – being **kind** and valuing empathy; and courage or bravery – being **brave**. The *Be Internet Awesome* program is built around these values. We are convinced that they help young people engage with the world around them – both virtual and real – in ways that are both conscious and responsible. Alongside the topic of each individual lesson, you will find one or more of the adjectives related to those core values that the lesson aims to instill, allowing you to emphasize them during class.

JOIN US IN DISCOVERING THE DIGITAL WORLD

Dear Teachers,

We understand that you may feel uncertain or simply unsure how to talk with young people about the digital world. We believe this book will prove helpful. The lesson plans provided here are designed to offer tools and guidance to help you lead engaging and valuable lessons.

You do not need to be an expert in technology or social media. We encourage you to accompany your students on this educational journey. You can learn from each other, explore the best ways to use the Internet together, and experiment with different solutions. We believe that a partnership approach will benefit both you and your class. It will help build relationships, foster a sense of trust, empower the students, and enable them to acquire new skills.

We hope this publication inspires you and supports your work in addressing the Internet and new technologies in class.

The School with Class Foundation Team

HOW TO USE THIS BOOK

This guide has been designed for work with students in secondary schools: high schools, professional technical schools, and vocational schools (levels 2 and 3).

The lesson plans proposed in this book are aligned with the core curriculum for secondary schools. They can be effectively used by teachers of various subjects, **including language arts, civics, history and contemporary issues, ethics, computer science, and the basics of entrepreneurship.** Many topics can also be discussed during **homeroom sessions**, as well as **extracurricular and out-of-school activities.** The materials allow simultaneous work on subject-related content while developing future skills such as communication, emotional intelligence, collaboration, and digital competencies.

Guide Structure

This publication is divided into four parts (modules):

- The first, titled *Understanding Myself Online*, gives students the space to reflect on themselves in the digital world – their habits, behaviors, and emotions.
- The second part, *Getting Internet-Smart*, enables analysis of the mechanisms functioning in the digital world and the phenomena occurring within it while promoting awareness, mindfulness, critical thinking, and the development of good habits.
- The third, *Me in Relationships with Others*, focuses on developing communication and social skills. The materials encourage students to analyze their emotions, practice empathetic communication, engage in dialogue, and embrace openness. They also teach how to deal with aggression and recognize dangers online.
- The final part, *Me in a Network Full of Opportunities*, contains scenarios that inspire students to undertake positive actions using the potential of the Internet. This section emphasizes responsibility, self-esteem, and agency.

The lesson plans are designed to be completed within **45-minute sessions.**

Flexibility in Implementing Topics

You decide how to work with this guide. You can cover the topics sequentially, focus only on specific sections, or select topics that are important or interesting for your class in any order. The topics in the guide overlap. At the end of the publication, you will find an **index** – you can easily check which scenarios cover the topics you are interested in.

Structure of the Materials

Each section begins with an **Overview for Educators** section that provides essential information on the topic. This is followed by a **glossary**, and then the **lesson plan** itself, based on **Kolb's experiential learning cycle.** According to this method, effective learning is built on engaging experiences which are then reflected upon, enriched with theoretical knowledge, and finally applied in practical ways.

Modality and Modularity

We understand that there are no tasks suitable for everyone. Therefore, the **lesson plans offer a range of activity options.** Choose the ones that best fit your class. Some plans also include additional tasks in the form of **extension activities.** We encourage you to experiment and adapt the materials to your needs. You can also modify the exercises to best meet the needs of your students, considering their individual interests and skill levels.

Variety of Content

The lesson plans involve working with diverse materials such as videos, newspaper articles, blog posts, social media entries, literary texts, memes, photos, and case studies. Each scenario includes ready-to-use examples. However, you are also free to create and use your own materials tailored to the needs and interests of the students in your class.

Required Materials

Many of the lesson plans do not require a computer or Internet access. However, some assume that students will search for information online or work with generative AI tools. At the beginning of each lesson plan, you will find a list of required materials and information on whether you or your students will need a computer, projector, or Internet access.

Presentations for Students

During the lessons, you can use ready-made presentations. To do this, you will need a computer and a projector. If these are available, you can also display worksheets or texts for analysis. Presentations for each topic are available on the program's website. You will also find additional tips for working with the guide.

KOLB'S LEARNING CYCLE

The lesson plans in this guide are based on the **Experiential Learning Theory.** Developed by American education theorist David A. Kolb, the model of learning – **Kolb's Learning Cycle** – was first published in 1984. Kolb drew inspiration from the works of other prominent educational theorists, particularly John Dewey and Kurt Lewin, as well as the contributions of psychologists and philosophers like Jean Piaget and Carl Rogers.

David A. Kolb views learning as a **process**, which he represents using a **circle** (or, indeed, a cycle), in contrast to the traditional linear model of transmitting information, where learners are passive recipients of content.

According to Kolb, the **process of learning consists of four stages**, and learning truly becomes effective when the learners complete each stage.

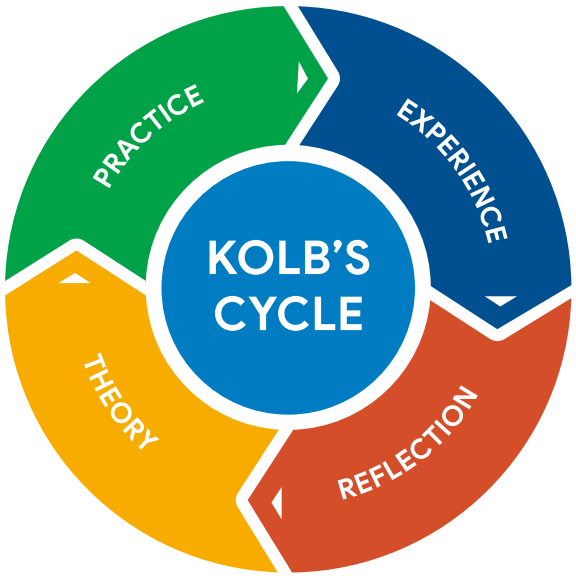
- The first stage – **experience** – involves students participating in a specific activity, whether a thought process or an action, resulting in the generation of an experience or an emotional response. This action or process could be playing a game, watching a film or image, reading a text, etc. The goal of this experience is to create a bridge between what students already know and what they are about to learn.

- The second stage – **reflection** – is the moment when the students analyze what happened during the experience stage: what their reactions were and what thoughts accompanied them. They compare the new experience with prior knowledge, draw conclusions, and formulate observations and hypotheses. In this part, it is helpful for educators to ask questions such as, "What happened?," "What could this mean?," etc.

- The third stage is **theory** (conceptualization), which involves formulating concepts (general, sometimes abstract, ideas) based on prior experience and reflection. The theory may be presented by the educators, developed (discovered or arrived upon) independently by the students, or in collaboration between the class and the teacher. Abstract concepts and models are intended to help young people better understand and organize the conclusions drawn from experience and reflection.

- The final stage – **practice** (experimenting) – involves testing the newly learned theories in relation to the surrounding world and applying the new knowledge in real-life situations, for example, to solve problems. This allows learners to see how these theories function in practice. The application stage summarizes the lesson. This could be a list of solutions, solving a problem, recording a short video, or creating a poster. Entirely new experiences are generated as a result of the experiments, which may initiate another cycle.

Apply your knowledge in practice; experiment. Relate what you've experienced to your daily lives and the world around you.



Do something! Play a game, look at a painting, listen to a song, analyze a text, role-play, etc.

Draw conclusions, organize the information, formulate definitions and rules.

Analyze what happened. Name what you observed. Formulate hypotheses.

The lesson plans presented in this textbook begin with experience and end with practice. According to David A. Kolb's theory, however, students can start the cycle at any stage, as all four phases are closely interconnected. **It is important to remember that skipping any stage of the cycle will disrupt the learning process based on experience.**

Advantages of Learning Based on Kolb's Cycle

The model allows students to be actively engaged in the educational process and, importantly, focuses on their perspective. Learners have more freedom to explore a given topic, which fosters the development of independence and responsibility for their own learning. Additionally, experiential learning can be fun, as it engages young people in creative activities. Reflecting on experiences develops critical thinking and communication skills. Combining theory with practice, with the reality around us, leads to a better understanding and retention of the material.

Working with Kolb's cycle also allows for building deeper relationships between the teachers and students. The teacher becomes a facilitator, guide, and mentor in the learning process, helping the students analyze and evaluate experiences through questions, discussions, and moderating reflective sessions. The teacher supports young people in connecting experiences with theoretical concepts and models, as well as identifying and understanding key concepts, theories, and principles. Going through the stages of Kolb's cycle together requires openness and trust, which fosters a positive classroom atmosphere.

Importantly, Kolb's model takes into account different learning styles: some may prefer practical activities, while others feel more comfortable during reflective observation or conceptual thinking.

The iterative nature of Kolb's cycle promotes continuous learning and improvement, as it allows the learners to pass through the stages of experience, reflection, conceptualization, and experimentation multiple times. This enables learners to introduce improvements, changes, and adaptations based on the knowledge they have already acquired and the experiences they have gathered.

FREQUENTLY ASKED QUESTIONS

Is the textbook aligned with the core curriculum?

The lesson plans proposed in the textbook include content related to the core curriculum for secondary schools, including language arts classes, civics, history and contemporary issues, ethics, computer science, and the basics of entrepreneurship.

Can the topics from the textbook be discussed during homeroom hours?

Many of the topics proposed in the publication can be discussed with young people during homeroom hours, as well as during substitute classes, additional classes, and extracurricular activities.

How much time is needed to conduct a single lesson?

Each lesson plan allows for a 45-minute class. The plans have been tested by teaching professionals. This gives us confidence that they are suitable for a single class period.

What do the adjectives placed next to the titles mean?

The *Be Internet Awesome* program is built around five values: prudence (smarts), alertness (attentiveness, mindfulness), strength (assertiveness), kindness, and courage, which promote being **smart, alert, strong** (assertive), **kind**, and **brave**. We are convinced that these values help young people engage consciously and responsibly in and with the world around them – both virtual and real. Next to the lesson topic, at the beginning of each chapter, you will find the adjectives associated with the core values you can strengthen during each class.

Do I need to cover the topics in the textbook in order?

You decide how to work with the book. You can discuss the topics with the students in sequential order, focus only on a specific part of the publication, or select topics that are important or interesting for your class in any order you believe will work best. The topics in the textbook overlap partially, forming smaller cycles themselves. At the end of the publication, you will find an **index** – you can easily check which plans address the content that interests you.

Why are there different task variants in the plans?

There are no tasks that are good for everyone. That is why the plans offer various activity options. Choose the ones that are best for your class.

Can I tailor the materials to the individual needs of my students?

We encourage you to experiment and adapt the materials to your needs. You can also modify the tasks to best meet the specific needs of your students, considering their individual interests and skill levels.

Can I skip a stage of Kolb's cycle when implementing a lesson plan?

No, learning becomes truly effective only if the learners go through each stage. Skipping any of them disrupts the educational process.

Do I need a computer with Internet access and a projector to conduct the lessons?
Many of the lesson plans do not require the use of a computer or Internet access. However, there are several that assume the students will search for information online or work with generative artificial intelligence tools. At the beginning of each plan, you will find a list of necessary materials and information on whether you or your class will need a computer, projector, or Internet access.

Do I need to be an expert in Internet safety to implement the lesson plans with students?
No. We have designed the textbook so that all educators can use it.

Where can I find presentations for the textbook that I can show to students?
Presentations for each topic can be downloaded from the program's website.

Module I

Understanding Myself Online

Understanding Myself Online

1. Your Privacy is in Your Hands!

OVERVIEW FOR EDUCATORS

By maintaining an online presence, we inadvertently share our personal data. The web – or rather, our Internet providers, the administrators of web browsers, search engines, applications, and social media – gather our information and process it to learn even more about us (through profiling). We leave some of this data behind inadvertently, as mentioned above – often unknowingly. This kind of information – such as our **IP address** (the number assigned to every device that connects to the Internet), the browser we are using, our device's operating system, the fonts we use, our search history, etc. – when collected, collated, and analyzed, often enables outside parties to identify us as **unique users.**

The second type of information that we leave behind, we give up of our own volition. Sometimes, it may be required to use a service or an application, or to enhance its functionality. For example, in order to purchase airline tickets, we usually need to enter our credit card number together with the card security code (the **CVC** or **CVV** number). When we shop online, we share our home address so the shopping can be delivered. Integrating the contact details stored on your phone with online communicators is optional but, when we do, those applications often become more functional and intuitive.

We share some personal information voluntarily, even though nobody asked us to and it is not necessary in order to use a service. Take social media, for example. We willingly share our political preferences, information about our hobbies and our families, but also our location or sexual orientation. This knowledge is often readily available to anyone who cares to look for it and use it.

Internet users have varying levels of need to protect their online information – that is to say, some see it as very important and some not at all. Internet providers usually justify their data collection efforts by saying that the information gathered is necessary to adjust their services to our needs. This reasoning is often explained along the lines of "You give us more information about yourself and we will tailor our services to your needs, so you can use them more comfortably." And, indeed, many users will attest to that – sharing our personal information does, in fact, make using online services much easier. Where, then, is the catch? Why is it better to count yourself among the people who do care about their online privacy and the safety of their sensitive information? Why is it important to shape and follow your own privacy policy?

> It pays to have control over what happens to our data and whether anybody profits from it, and if they do, **who** they are, and **how** they do it. The more companies know about us, the more products and services they will be able to sell to us and the quicker they can do so. We should also remember that it is advertisers who pay the most for consumer data and profiles.

Another type of risk is posed by data leaks.[1]

The third reason why we should care about what happens to our data and what the Internet knows about us is that Internet providers adjust the content displayed based on our preferences, thereby locking us up in a bubble of familiar faces and viewpoints. Search results that fall outside the scope of our personal data profiles are inaccessible to us or significantly more difficult to access.[2]

But what about the data we share online unprompted – mainly on social media? You should ask yourself: what will I gain by sharing this piece of information and what can I potentially lose? Let us remember that, no matter how information is relayed, when it leaves our device and is shared with other web users, our control of it becomes drastically reduced. As a matter of fact, this loss of control can happen even before we decide to share the information, as unsecured or improperly secured data can simply get stolen from our devices. When we save personal information in applications, it is stored on company servers and managed by administrators, but it can get hacked and leaked.

Does this level of risk mean that we should stop communicating over the Internet? No! It is worth thinking, however, about what privacy means to you, how important particular information is, who you want to share it with, and what could happen if it ever gets leaked, now or in the future – as well as what steps you would be able to take.

The regulation of data collection and use is a subject of international discussion. Attempts at better legal regulation are being undertaken by the European Union, among others – under the Digital Services Act (DSA), and the Digital Markets Act (DSM). And what can we, the users, do?

1. **Maintain awareness and build it in others.** When we use the web, we leave behind our **digital footprint.** Our data is valuable and our safety hinges on how we approach the problem of online privacy. Although using the Internet means sharing our information, we have control over what we reveal and to whom, as well as what happens with our data.
2. **Consciously decide which data we share when installing an application or entering a website.** Read the terms and conditions of the apps we install. Whenever we install an app or enter a website, ask ourselves if we have to share all the information we are asked to, or if the service will work without it. And if an app or service requires us to share personal data, do we really need it?
3. **Consciously disclose the data that we want to share, though we do not have to, including on social media.** Do we really want to share a given piece of information? And if so, who do we share it with? Who are our Internet friends, i.e., who do we establish connections with on social media? Are these people trustworthy? What could happen if particular information was shared outside our friend circle? What if it gets revealed and remains linked to us for the next twenty years?
4. **Decide what happens to our data on the web.** The law allows us to do so. It is worth knowing what rights we have and how to exercise them.

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1. This is illustrated very well by an infographic from the Information is Beautiful website created by the British data journalist David McCandless. It gathers and organises the disclosed information on data leaks from various companies' servers: https://informationisbeautiful.net/visualizations/worlds-biggest-data-breaches-hacks/. Accessed 11 June 2024.
2. Eli Pariser shines more light on this problem (the online filter bubble or social media bubble) in his TED talk: https://www.ted.com/talks/eli_pariser_beware_online_filter_bubbles. Accessed 11 June 2024.
Although the filter bubble phenomenon has been researched since Pariser gave his talk and certain aspects of it work differently than he describes it, he was not wrong about the general characteristics of algorithmically curated online media.
More about that in the *Don't get trapped in a bubble* lesson plan.

5. **Delete our data when we no longer use the application or service.** When we delete an app, it is worth considering whether our data will be removed from its servers. If not, can we have it deleted, and how?
6. **Stay vigilant and use the tools and technical solutions at our disposal to help us maintain online privacy.** We should ask ourselves what level of privacy we need. How valuable a given piece of information about us is to us or will be in the future. We can choose any data-protection methods that suit our needs, such as:

    - social media settings (who can see our information and read our posts);
    - two-step verification, also known as multi-factor authentication (e.g., logging in with a password and a verification code sent to our phone number or email address);
    - routinely resetting our passwords for online services;
    - using data-protection browser plug-ins;
    - checking whether the websites we use are encrypted for secure communication (https);
    - browsing the Internet safely, i.e., using a browser that does not collect our data, using incognito mode, the Tor network, or a VPN;
    - deciding whether we want to use public Internet access points and networks (e.g., café Wi-Fi, municipal network, etc.), especially when the online activity we are undertaking is particularly important or delicate (e.g., banking operations, private correspondence, etc.);

7. **Check how much the web knows about us: we can easily find online tutorials that enable us to verify what Facebook, Google, and other tech giants know about us.**

GLOSSARY

CVC or CVV — the three-digit security number on the back of a credit or debit card.

digital footprint — the information we leave behind on the Internet and through which we can be identified.

Digital Services Act — (DSA) & Digital Markets Act (DMA) – documents developed by the European Union to more effectively protect our rights online.

friend — (as in *Internet friend*) – a status we can assign to people on social media. By adding people to our friend circle, we usually grant them greater access to our posts and data.

IP number — (Internet Protocol Address) – a unique identification number assigned to devices that connect to a network. Several devices can operate under a private IP (e.g., on a home network), which means that the IP number does not always identify a specific device, much less the person using it.

right to privacy — one of the human rights every person is entitled to regardless of merit or duties performed. It is secured by the Charter of Fundamental Rights of the European Union,[3] which, among other things, states that "Everyone has the right to respect for his or her private and family life, home and communications." As far as the Internet is concerned, it is worth considering one's privacy in the context of the data we willingly disclose online, as well as any other kind of information about us that is accessible to other users. The Charter of Fundamental Rights emphasizes that everyone has the right to the protection of their personal data, that the said data must not be processed without consent, and that it should be available for inspection by the person whom it concerns.

Tor — (The Onion Routing) – software that enables access to websites through a free Tor Browser. It makes Internet traffic analysis much harder, thereby granting its users anonymity. Thanks to connection encryption, our online activity remains invisible, for example to our internet service provider.

unique user — a person who uses a given website or network, most often identified through so-called cookies, i.e., small packets of data that a viewed website sends to our browser, and that the browser sends back to the website during subsequent visits. The term *unique user* is used in the lesson plan below in order to emphasize how much information about a person can be gleaned from connecting all the data we leave behind online and how easy it is to differentiate between individual, *unique*, users.

VPN — (virtual private network) – another way for users to browse the web in an untraceable, anonymous fashion. Works in a similar way to Tor.

LESSON PLAN

Objectives

The students:

- know what it means to disclose their data online and what the consequences of that may be;
- understand that they have control over what the Internet and the people and entities using it know about them;
- know what online privacy is and how to manage it;
- are aware of what privacy means and have a sense of control over and responsibility for it.

Materials

- whiteboard or flipchart
- markers or pens
- sticky notes

3. "Charter of Fundamental Rights of the European Union." Official Journal of the European Union, 2016/C 202/02, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:12016P/TXT. Accessed 11 June 2024.

Tip

If you can, arrange the classroom chairs differently than usual, e.g., in a semicircle, so that the students can see each other. It is not essential, but it can make the lesson easier to conduct and more engaging.

EXPERIENCE (3 minutes)

Play the students a short video, *Amazing mind reader reveals his ‚gift'*. You can find it on YouTube: https://www.youtube.com/watch?v=F7pYHN9iC9I.

REFLECTION (25 minutes)

OPTION 1

1. Ask the class what feelings and reflections the video prompted in them. Allow a few of the students to share their emotions and first thoughts. When you notice that they are starting to analyze the details of the film, move on to the subsequent parts of the lesson. Before you do, on the whiteboard or clipboard, write the sentence that appears toward the end of the video: **"Your entire life is online."**

2. Ask the students what kinds of information about themselves they disclose online. Write their answers on the board or flipchart. Mark, highlight, or write in a different color those of them that a majority of the students have shared.

Tip

If you have reason to believe your students will not want to share this kind of information publicly, you can hand out some sticky notes and ask the class to write it down anonymously. When they are done, collect the notes and stick them on the board. You can also use an application that allows live feedback during presentations, such as Mentimeter.

If you want to make the task easier for the students, you can write the list of personal information on the board or flipchart. Then, during the lesson, hand markers out to the students and ask them to draw vertical tally marks next to those they have disclosed online, for example, on social media or during other activities, such as online shopping.

Example personal information items:

- Credit card number
- Credit card security code
- Account number
- Email address
- Password
- Login
- Address of residence
- School name
- School address
- Place of work
- Work address
- Sexual orientation
- Religious profession or lack thereof
- Views and values shared

- Phone number
- Race
- Disabilities
- ID number
- Name and surname
- Photos
- Information about one's friends
- Information about one's family
- Income
- Appearance of the house/apartment
- Taxpayer identification number
- Relationship status
- Location
- Social media used
- Hobbies and passions

3. At the end of the exercise, ask the students whether they believe the sentence **„Your entire life is online"** to be true.

4. Finish this part of the class by encouraging the students to answer the same question privately, in their minds, but this time ask how true they think the sentence is for them.

OPTION 2

1. Before the class, look online for information about your students. During the class, after you have written down the „Your entire life is online" quote, you can start sharing some of the information with the group. It goes without saying that any information that may be shared this way will not lead to hate/hate speech, ostracism, or cyberbullying. Those seemingly minor facts uttered by you can encourage reflection on privacy and anonymity in your students or lead them to ask themselves "How does the teacher know that?!" This lesson variant is, in a way, an extension of the introductory stage when you watched the mind reader video together. Ask the students whether, when they were posting the information you brought up, they were aware that even their teacher or counselor could access it.

2. Then, ask the students whether they believe the sentence „Your entire life is online" to be true.

3. Encourage the students to answer in their minds to what extent the above sentence is true for them.

4. If time permits, add one more sentence to the previous one: „Your entire life is online. And it might be used against you."

5. Ask every student to choose, in their mind, a piece of information about themselves that they believe is valuable, and yet they shared it online. What did they gain by disclosing it? What did they risk, or what is now at risk because they did that?

OPTION 3

Take note!
This lesson variant requires a high degree of trust between the students and responsibility on their behalf, as well as the skillful division of the class into groups. Consider whether the people you are working with are ready for this exercise and whether they won't use any information they uncover in bad faith. If you think they are ready, you may want to draw up a social contract of sorts before the activity proper. Have the students agree to certain rules or recall the rules if they have already agreed upon some.

In this variant, the class will be allowed to use their own phones or will work on display screen equipment supplied by the school.

1. Divide the class into pairs or groups of four. Next, ask them to take 5-7 minutes to go online and find as much information about the other person (if the students are working in pairs) or the other pair (split groups of four into opposing pairs).

2. Give the teams another 5 minutes to exchange information they believe may be surprising to the interested parties.

3. Ask volunteers to share with the class which personal information uncovered in the course of the exercise came as a surprise to them. Have every person talk about themselves, though, not about the classmates whom they were researching. Make it clear that mutual trust is paramount here.

4. Finally, encourage every student to answer in their mind how true the sentence **„Your entire life is online"** they believe to be for them.

THEORY (7 minutes)

Emphasize that, every time we share personal data online, we should ask ourselves:

- Why am I disclosing this information?
- Do I have to do it?
- What do I stand to gain from sharing it?
- What can I potentially lose because of it?

Using the Overview for Educators section, remind the students that:

1. The information we disclose online does not disappear – once it has been shared, it becomes very difficult to delete.

2. Even if our social media posts are available to a limited audience (say, our friend circle only) or even to just one person, by posting the information, we lose control over it.



Tip

If time permits, you can ask the students whether they really know, remember, or recognize all their online friends. Do they have a clear policy (clear to themselves) on who they invite to be their friends on social media? Note several answers.

3. The same happens when we install apps or log in to websites – we share our data with the administrators. It is worth reading the terms and conditions of use to learn what can happen to our disclosed data. We should also take into account the possibility that our data may be stolen.[4]

4. If time permits, you can illustrate this danger with the following website: https://informationisbeautiful.net/visualizations/worlds-biggest-data-breaches-hacks/. Accessed 11 June 2024. It contains an infographic that displays information gathered on the world's largest data leaks and breaches.

4. Before we share some personal information online, it is worth considering not only what it can do for us (or to us) here and now, but also in the future. Leaving a comment (which can also influence our image!) or sharing a piece of information may appear harmless, even if somebody was to make them publicly available. The question we should ask ourselves, however, is whether the said comment or information item will not somehow harm us or be used to harm us in the future, e.g., if it gets revealed when we are applying for a job, or to undermine us if we are holding a position of authority.



Tip
If you are short on time, you can limit this section to the first two points of the above list.

PRACTICE (10 minutes)

Ask the students to think about what each one of them can do, change, or remember in order to take care of their online privacy. You can write their suggestions down on the board or flipchart. If time permits, it is worth going deeper in, i.e., prompting your students to look for specific tools that can increase their online privacy. You can demonstrate (either yourself or have a student do it) how to apply their ideas in practice.



Tip
You will find a list of suggestions toward the end of the Overview for Educators section.

It's worth showing the students how to change their privacy settings on social media.[5] Research shows that, although many adults believe that their adolescent children know how to do that, not all students do and most of those who do not will not admit it. You can use the information supplied in the introduction to this lesson plan.

5. Social media platforms allow their users to decide who will have access to particular personal information items, who will be able to read their posts and comments, and to influence the type of content and ads that will be displayed to (curated for) them. Instructions on how to change our privacy settings can be found in the help section of a given social medium. They can also be found through a search engine. Just type in the following phrase: [the name of the social medium] + "privacy settings." If you feel you could use a more comprehensive explanation or instructions, type a similar phrase into YouTube and watch a few video tutorials (it's worth checking at least two different sources).

Understanding Myself Online

2. Your Online Image: From Sharing to Informed Decision-Making

OVERVIEW FOR EDUCATORS

Every day we publish various materials on the digital media – photos, sound recordings, videos, memes, posts, or comments. Often, however, we do not realize that we are leaving behind a **digital footprint**. What does this mean? The term is used for all kinds of information that, like metaphorical footprints, we leave behind while using the Internet. By analyzing it, people and entities can learn a lot about us.

What we post online influences our **image**, as well. This term encompasses all the ways we are presented (or present ourselves) and subsequently perceived online. On a daily basis, our image is shaped by various factors – our appearance, the way we dress, our facial expressions, vocabulary, style of speech, and behavior, but also the beliefs we hold or the values we profess. A very important part of the creation of our public image is played by what we share and comment online, as well as how we interact with other web users.

Consequently, our image can influence our **reputation**. Based on our image, others form **opinions** about us. However, while we can manage our image in a conscious and informed manner, and thereby influence it, controlling how others perceive us and what they think about us is incomparably more difficult. Once someone's reputation is damaged, it can be very hard to repair.

Because of this, Internet users should think in advance about how they present themselves online. After all, the way others perceive us often depends on the type and quality of the content we post or upload, the way we communicate and interact with others, our manners, and our general online activity.

> Once published online, the content we post can stay on the web forever. This makes it available to those who are actively looking for it and to users who encounter it by accident. These people may be our prospective employers, friends and acquaintances from other schools, or anyone with whom we will enter into any sort of relationship (romantic or otherwise) in the future. That is why sharing personal information online should be approached with caution and forethought. We need to be aware of the potential consequences of our online activities, but avoid coming across as unauthentic or losing our signature style and energy.

This is a very important reflection. The conscious, informed management of one's image should not mean the creation of a made-up persona with whom we have very little in common. Such behavior could be seen as manipulative. One should remain authentic when accessing the web, i.e., behave in accordance with one's professed values, lifestyle, and upbringing, at the same time taking care not to endanger one's privacy, ignore safety standards, or go against the principles of good communication.

GLOSSARY

digital footprint	all the information we leave behind while using the Internet.
image	(as in *public image*) – the general impression we present or the way we are presented (for example, on the Internet and digital media).
opinion	a view or judgment about something.
reputation	the general opinion that others have about us.

LESSON PLAN

Objectives

The students:

- know what a person's image is and what factors influence its public perception (especially in the context of digital media);
- are able to perform a critical analysis of selected social media profiles in the context of image-related issues;
- possess basic skills that enable them to manage their online image on their own.

Materials

- printed worksheets (Appendixes 1 & 2)

EXPERIENCE (10 minutes)

1. Ask the students whether they maintain social media profiles that they manage on their own. If they answer in the affirmative, ask the following questions:

   - Why do you do it?
   - What kind of content do you post most often?
   - What is most important to you in this context?

2. After a short discussion, show the students three example posts (Appendix 1) and ask them to consider several questions while they are viewing them:

- How do you perceive the people presented in the posts?
- Who could they be?
- What associations come to your mind while you are reading their profiles?
- How do you think these people would like to be perceived?

Take note!

You can conduct this exercise in two different ways:

- *It can take the form of a traditional brainstorming session – the students will share their opinions and observations publicly.*
- *It can also be carried out as a group activity – divide the students into pairs or small groups and distribute the worksheets you printed earlier (Appendix 1). Ask the students to write their ideas and associations in the spaces below the example posts.*

Extension activity idea

Instead of the example posts from the Appendix, you can show your students actual social media profiles from different platforms. Choose the official profiles of real people – actors, models, musicians, professional athletes, celebrities, politicians, content creators, entertainers, and other media personalities, e.g., Taylor Swift, Harry Styles, Joe Biden, Charli D'Amelio, Kim Kardashian, Robert Lewandowski, etc.

You can also opt to select the profiles for this activity in class, during the lesson, together with your students. If you do, display them as you go. This version of the exercise can make for a great excuse to talk about the people who manage the social media profiles of celebrities. After all, they are usually maintained by media relations agencies that have clear marketing goals. In such cases, do questions about authenticity even apply, since these profiles have entire teams of people behind them?

REFLECTION (10 minutes)

1. Following up on the previous exercise, ask the students:

   - Which elements did you pay special attention to while analyzing the example social media posts?
   - What triggered your associations with the people presented in the posts?
   - On what basis did you form your opinions about those people? What factors influenced your thought process?

   During the group discussion part of the activity, you can expect, among others, the following answers:

   - the categories the example profiles appear to fall into (e.g., business motivation and self-improvement profile)
   - the subject matter touched upon by the profiles (e.g., a model/dancer posting about ecology)
   - the types of photos posted to the profile (amateur or professional photography, etc.)

- the portrait photos chosen
- what they show people doing
- lighting, colors, framing, and composition
- the filters used
- the ways people pose in particular photos
- their makeup and the way they are dressed
- the items and gadgets visible in the photos (a book, etc.)
- the symbolic elements visible in the photos (a mansion in the background denotes high social status, etc.)
- descriptions and other text by the original posters, the number of comments and likes, etc.

2. Ask the students to share their reflections about the analyzed posts:

- What do you think about them?
- What do you think the nature of these posts is?
- Do you think the accounts these posts were published in are managed well?
- Can we talk about authenticity in their context?
- What might their purpose be?
- Etc.

THEORY (10 minutes)

1. Following up on the previous activities, ask the students what the word image means to them. After a short discussion, read the partial definition from the *Cambridge Dictionary* to the class:

1. a picture in your mind or an idea of how someone or something is
2. how something or someone is thought of by other people[1]

Tell the students that as far as the Internet is concerned, the second definition will be far more important.

2. Next, guide the students through the most important information brought up in the Overview for Educators section, paying special attention to the relationship between one's image and their reputation. Make your students aware that how one's image is received and perceived online is influenced by numerous factors, most of which we remain unaware of, even as we publish content online on a daily basis, often without really thinking it through, thus leaving behind a digital footprint. Such posts and comments may become the basis on which other people (e.g., our classmates, teachers, or future employers) will form opinions about us.

Among the most important factors that shape our image are:

- the language we use,
- the content of our posts,
- the style in which we write or speak,

1. Cambridge Advanced Learner's Dictionary & Thesaurus. "Image." Cambridge Advanced Learner's Dictionary & Thesaurus, https://dictionary.cambridge.org/dictionary/english/image. Accessed 5 July 2024.

- the comments we write,
- our liked content,
- potential persistent errors (e.g., spelling or linguistic),
- the websites or profiles we follow,
- the platforms we use and create accounts on (e.g., a LinkedIn account vs a TikTok account).



Tip
You can conduct this part of the lesson in the form of an open discussion. If you do, write the ideas brought up by your students on the board or flipchart.

PRACTICE (15 minutes)

Ask the students how, in their opinion, one should manage one's online image to avoid ruining one's reputation, endangering one's privacy, and creating an inauthentic persona. What, in this context, should Internet users pay special attention to and what behaviors should they avoid?

Take note!
This exercise can be conducted in one of three different ways:

- *It can take the form of a short brainstorm, in which the students will share their opinions with the rest of the class. Write their ideas down on the board or flipchart.*
- *Alternatively, the students can write their answers and suggestions down on sticky notes and place them on the board/flipchart under the appropriate headings – WHAT TO DO and WHAT TO AVOID.*
- *Finally, you can divide the class into groups of three or four, distribute the worksheets printed beforehand (Appendix 2), and ask the teams to fill them out:*

How to consciously manage your online image?
- What to do
- What to avoid

You can expect some of the following responses:

WHAT TO DO
- Pay more attention to the quality of the content we publish.
- Make sure the photos we upload do not contain anything we would not like to share publicly.

WHAT TO AVOID
- Disclosing too much personal information.
- Creating a curated online persona that has very little in common with who we actually are.

Take note!
Remember that the most important part of this exercise is to have the participating students share their thoughts on the subject. This enables them to draw their own conclusions and helps them make informed choices online.

Extension activity idea

1. Following up on the discussions you just had, suggest another group exercise. Divide the class into teams of three or four. Then, ask a representative from each group to draw a slip of paper at random from a set prepared beforehand. On those slips, write the names of some famous people or historical figures. Find an example list of names below, but feel free to modify it and adjust it to your students' level of knowledge:

    - Marie Curie
    - Leonardo da Vinci
    - Cleopatra
    - Vincent van Gogh
    - Coco Chanel
    - Albert Einstein
    - Elizabeth I

2. Ask the students to take a few minutes to familiarize themselves with their teams' characters, especially if they do not recognize them. Tell the groups to look for the most important information – they can search for biographies online or use the books from the school library.

3. After a short research session, ask the teams to come up with ideas on what a given character's social media profile would look like if they wanted to manage it in a conscious and well-informed way, taking into account the advice from the previous exercise.

    - What would your group's person's profile be about? What would its subject matter be?
    - What would the photos uploaded there look like?
    - What kinds of posts would be published there most often?
    - What comments would the person managing the profile care about and want to see the most?
    - Etc.

The students can write their ideas down on the larger paper handouts or flipchart sheets.

4. At the end, suggest to the students that they can use their new knowledge and the tools at their disposal to analyze their own social media profiles (that is, if they have accounts on social media websites) in the same way. Ask:

    - What can the information you post tell others about you?
    - How could it be received by different types of users (as in, your classmates, teachers, parents, or prospective employers)?

Appendix 1

John Smith
London, UK



John Smith Everyone can achieve their dreams. All it takes is to want it to happen.

WHO IS HE? WHAT ELSE COMES TO MIND?

Karolina Nowak
Warsaw, PL



Karolina Nowak It's the best book I've ever read. #bookstagram

WHO IS SHE? WHAT ELSE COMES TO MIND?

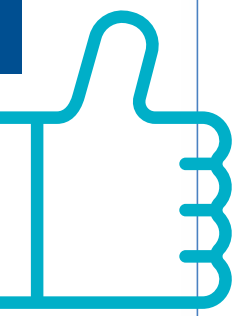
Chloé Martin
Paris, FR



Chloé Martin Remember, Earth Hour is tonight. At 8:30 pm, everybody turn off the light!

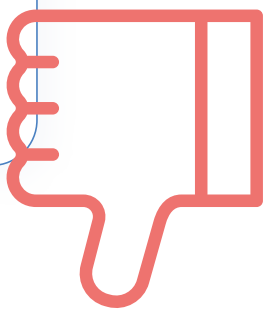
WHO IS SHE? WHAT ELSE COMES TO MIND?

HOW TO CONSCIOUSLY **MANAGE YOUR ONLINE IMAGE**



WHAT TO DO

WHAT TO AVOID



Understanding Myself Online

3. How Not to Stop Liking Yourself When Following Others Online?

OVERVIEW FOR EDUCATORS

Technological progress and the development of digital media have made it easier for people to share information about themselves. More and more people set up and manage their profiles on social media, using them to post about their private, school, or professional lives, as well as hobbies, interests, and passions. Thanks to platforms like Facebook, Instagram, TikTok, or Snapchat, we can follow our friends and colleagues, but also celebrities, idols, and influencers.

Watching other people's profiles can be a source of motivation and inspiration. It can prompt us to do more things, help us learn about the latest trends, discover new places of interest, learn new facts and skills, or it can simply be a source of fun. The reverse can also be true, however. When reading posts published by people we consider more attractive than us, or those who lead more interesting or fulfilling lives, we sometimes suffer blows to our self-confidence and self-esteem. Sometimes, when we compare ourselves to others, we start to feel we are not attractive, talented, or good enough.

> One should bear in mind that comparing ourselves to other people is a natural mechanism and something that often happens automatically. **According to the social comparison theory developed by the American psychologist Leon Festinger, people have an innate tendency to define themselves and assess their self-worth by comparing themselves to others.**[1] This can inspire us to change and motivate us to improve ourselves and grow. We should not, however, let these comparative reflexes be the basis of our self-esteem. After all, „always there will be greater and lesser persons than yourself".[2] Comparing ourselves to people we deem better may lead to frustration and dissatisfaction with ourselves. That is why it is so important to maintain a healthy balance between comparing ourselves to others and self-acceptance.

How we feel and what we think about ourselves when we compare ourselves to others is influenced by a variety of factors. First and foremost, these sentiments are affected by our self-knowledge, values and beliefs, living conditions and situations, experiences, and the information and feedback from those who know us. The culture and society we live in also greatly influence our understanding and personal definitions of beauty, success, and good fortune. It is through cultural norms that certain goals or ideals become benchmarks for our self-esteem. Let us return to the Internet to illustrate this mechanism. If a person is particularly concerned about their appearance but not fully satisfied with it, reading posts from the account

1. Festinger, Leon. *A Theory of Cognitive Dissonance*. Stanford University Press, 1962.
2. Ehrmann, Max. *"Desiderata."* Crown, 1972.

of a model to whom that person compares themselves may instill insecurities and inspire envy in them. If we do not care about how we look but love to travel, we may pay more attention to where a particular photo was taken, especially if that place seems interesting, and this, in turn, may create a desire to go there.

We can draw one more conclusion from the above example – each of us perceives and interprets the information received about others in a different way, and, by the same token, reacts differently. The same content can fill one person with positive emotions and another with difficult or negative ones.

When we find ourselves going through these difficult emotions, it is worth asking the question of why a given piece of information produced this kind of reaction in us. What value or need is behind our emotions and reactions? For instance, behind regret and frustration, there is often an unfulfilled need to belong and be accepted. Jealousy may be brought on by low self-esteem, and anger by those moments in which we feel deprived of control over our life. Understanding one's needs may help regulate one's emotions.

It is important, too, to practice comparing yourself to yourself – that is, to learn to appreciate yourself and to notice your own successes and progress. We need self-esteem in order to be able to maintain healthy relationships with other people and emotional harmony. In the words of the Danish educator and therapist Jesper Juul, "People who have a healthy, well-developed sense of self-esteem feel self-contained, at ease with themselves. Described from within, the healthy self-esteem says, 'I am all right, and I am of value just because I exist!'"[3] One should, for their own good, strive to attain this state of being.

GLOSSARY

influencer	a person who has gained online popularity and uses their fame to influence their viewers/readers, their world view, taste, etc.
self-esteem	an attitude towards oneself, especially towards one's own abilities and other socially valuable qualities.
social comparison theory	a psychological concept that describes the process by which people draw conclusions about themselves by comparing themselves with others.

LESSON PLAN

Objectives

The students:

- are aware of the emotions and feelings that arise when they look at other people's social media profiles;
- understand that different people may perceive social media content differently and react to it in different ways;
- know that comparing themselves to others is a natural mechanism;

3. Juul, Jesper. *Your Competent Child: Toward a New Paradigm in Parenting and Education*. Farrar, Straus and Giroux, 2001.

- understand the need to improve their self-esteem;
- can sense when the pressure to compare themselves to others arises and do not succumb to it.

Materials

- printed social media post (see Appendix) – one copy for each of the groups of four (you can also just display it on a screen)
- cut-out pieces of paper with roles on them (see attachment)
- one sheet of paper per group

EXPERIENCE (15 minutes)

1. Ask the students **what kinds of social media profiles** they follow (expect answers along the lines of: classmates, idols, influencers, travelers, models, musicians, and actors). Next, ask them to **name different emotions** they recently felt while scrolling through the posts of the people they follow (e.g., surprise, envy, admiration, shame, indifference, and inspiration). Write the answers down on the board. Make sure this activity does not take more than 5 minutes.

2. Divide the class into **groups of four**. Tell them that they will shortly see a post that somebody published on their social media profile. Explain that their task will be to draw a random piece of paper with a role on it, **imagine they are the person described,** and think about what this person might feel or think (including about themselves) after seeing the post. Let the students know that they can write down a few different suggestions.



Tip

From the example posts below, choose one that you believe will best resonate with your class.

REFLECTION (15 minutes)

When the groups are done writing their suggestions down, ask the representatives to read the thoughts and emotions of the people their teams were asked to identify with aloud to the rest of the class.

Sum the exercise up. The following questions should help:

- Why do you think each of those people may react differently to one and the same post? What is the reason behind this?
- You have listed many different feelings and emotions. Were there more positive or difficult ones? What do you think might be the cause of that?
- In what ways can comparing yourself to others influence your self-esteem?
- Can comparing ourselves to others be beneficial to us? In what ways?

THEORY (5 minutes)

Emphasize that comparing yourself to others is a natural mechanism and that there is nothing wrong with it. Bring up Festinger's social comparison theory mentioned in the Overview for Educators section. Explain that comparing ourselves to others actually helps us learn about ourselves. Remind the students that the way we feel and think about ourselves in the process of social comparisons is affected by many different factors: our self-knowledge, beliefs, and values (i.e., what is most important to us), but also what others say about us and our circumstances (life situation, material status, etc.). Make sure you convey the fact that each one of us receives and perceives information about other people in a unique way, which translates to our reactions being highly individual as well. **Suggest to the students that when they are going through difficult emotions, it is worth stopping for a moment and asking themselves why a particular piece of content or information sets off that kind of reaction in them.** What need or value is behind these emotions and reactions? Give the students several examples: if, when we are looking at a photo of a beautiful, well-dressed person, we feel we are insufficiently attractive, appearance probably ranks rather high on our list of values. If reading about someone else's achievements in sports makes us feel like we have not achieved enough ourselves, this reaction may stem from the need to compete or the need to be the best. Or is it something else?

At the end of the theoretical section, emphasize that one should not build their self-esteem based on comparisons. Explain Jesper Juul's take on self-esteem to the students and encourage them to try to practice self-comparisons more, i.e., to try to appreciate their own successes and progress.

PRACTICE (10 minutes)

Ask the students to do the following exercise:

1. First, think about the context in which comparing yourself to others comes most naturally to you (this could be your appearance, grades, skills, or maybe money or travel).
2. Recall a particular situation in which you compare yourself to another person. Try to remember how you felt and what you thought about yourself then.
3. Now, take a piece of paper and write a different thought – one that you could have had in that situation, and that would have been much nicer to have. Hold on to these notes, they are for your eyes only and you do not have to show them to anyone.

When your students are done, ask them whether it was easy for them to come up with the more positive messages and reflections, and why.

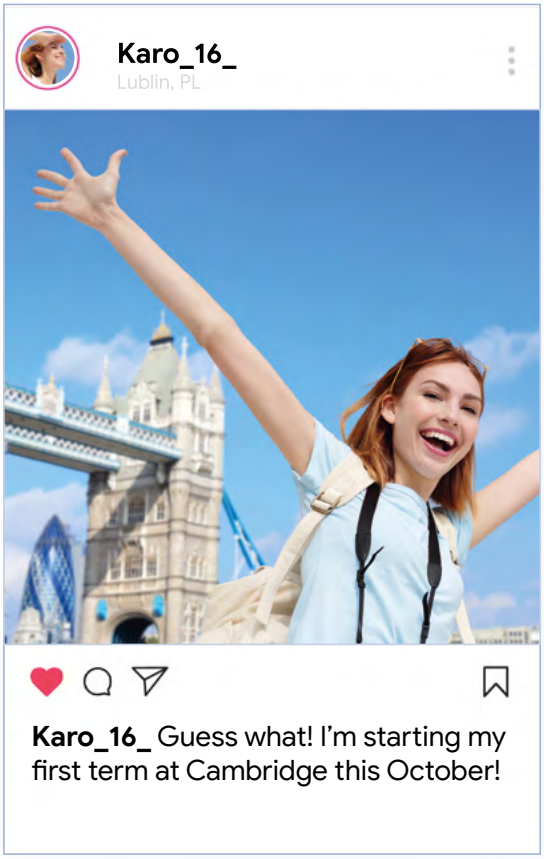


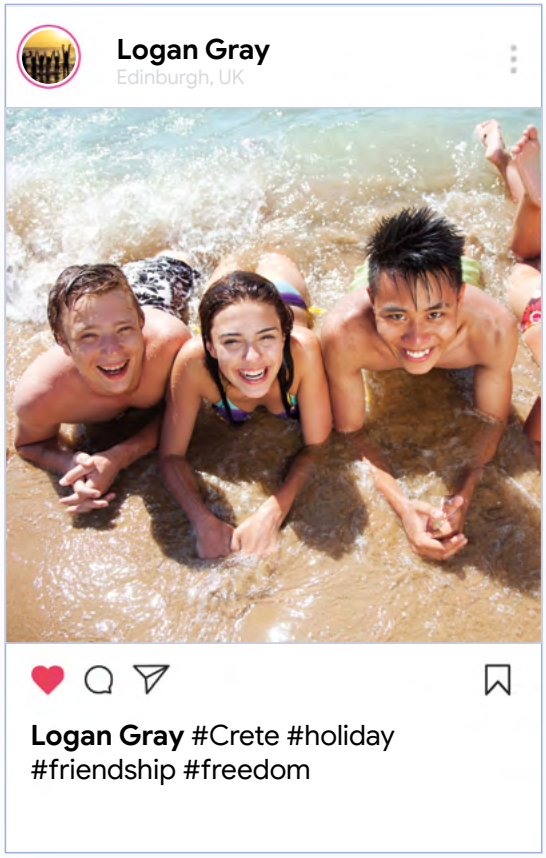
Tip

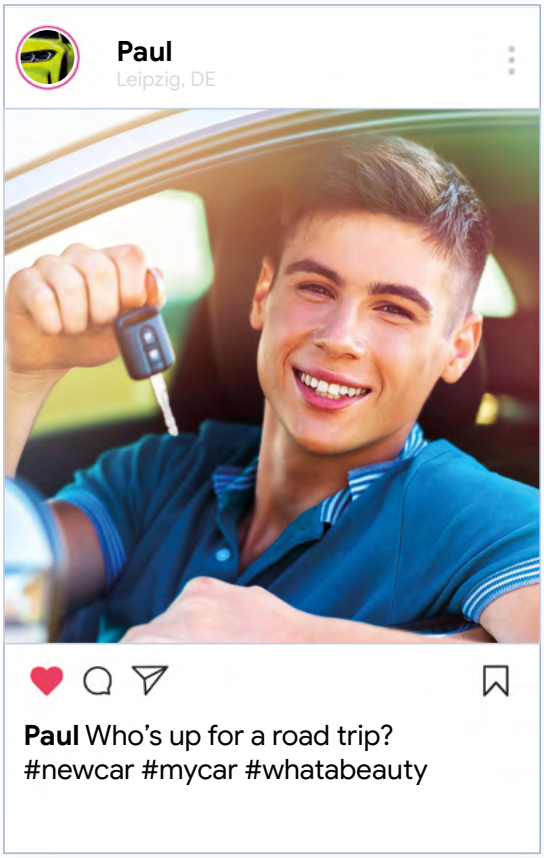
If the students say that coming up with positive thoughts and words of encouragement for their past selves was difficult, explain that it is only natural. Quote the neuropsychologist Rick Hanson: „Your brain is like Velcro for negative experiences but Teflon for positive ones."[4] Encourage your students to practice positive thinking and self-appreciation.

4. Hanson, Rick. *Hardwiring Happiness: The New Brain Science of Contentment, Calm, and Confidence*, Harmony, 2013.

Appendix 1


Karo_16_
Lublin, PL
Karo_16_ Guess what! I'm starting my first term at Cambridge this October!


Logan Gray
Edinburgh, UK
Logan Gray #Crete #holiday #friendship #freedom


Paul
Leipzig, DE
Paul Who's up for a road trip? #newcar #mycar #whatabeauty


Gabi_in_vogue
Porto, PT
Gabi_in_vogue Finally time for summer outfits! #summerdress #summerstyling #OOTD

Appendix 2

Story 1.	A friend who also got into Cambridge	A friend who is into hairstyling
	A friend who got into her dream university in Poland	A friend who is one year younger and hasn't thought about university yet
	A classmate who didn't get into his dream university	A cousin who can't afford to study away from her hometown
	Younger sister	A friend who plans to start working immediately after school instead of going to university
Story 2.	The classmate who was supposed to go to Crete with the people from the photo, but broke his leg the day before the trip	The younger sister of one of the girls from the photo
	A friend who's never been abroad but would love to go	A classmate who spends her holidays working at her parents' store
	A person who doesn't have a close relationship with anyone in the class	A friend who spent her summer holiday at the lakeside with her parents
	A person interested in ancient history	The classmate who went to Berlin with the soccer team
Story 3.	A friend who also bought a car recently	A younger friend who still has to wait some time before he can get his driver's license
	A friend who is not interested in cars	Younger sister
	A friend who is currently taking her driver's education course	A friend who doesn't want a car and prefers to ride a bicycle
Story 4.	A friend who also wants to be a fashion influencer	A classmate who cares about the environment and only looks for second-hand clothes
	A friend who would like to change his style and is looking for fashion inspiration	Younger sister
	A classmate from a parallel class who is not interested in fashion	A person who likes to browse such posts but is too shy to upload their own photos online

Understanding Myself Online

4. What Do I Need and What Hurts Me? On Harmful Internet Content

OVERVIEW FOR EDUCATORS

Harmful and illegal streaming content is content published on the web in the form of Internet transmissions (streaming), short videos cut from recorded live streams (clips), full-length videos, photos, or other related media showing the author or authors exhibiting behaviors that violate social norms and aim to demoralize and offend, including physical, psychological, and sexual violence, alcohol abuse, verbal degradation, drug use etc.

Harmful and illegal content may take the form of songs, videos, and photos, but by far the most popular way of disseminating this material is **live streams**, i.e., real-time transmissions (video feeds), so named because, not unlike live TV, they are streamed live on the Internet.

Unethical streamers publish their content on live-streaming Internet platforms, but often do not save the videos from their streams, which makes it difficult to inform the authorities about their activities, let alone prosecute them when they break the law. But how, then, do such people gain and maintain popularity? Fragments of their streams are often recorded by viewers who later upload short, edited versions to their social media as **clips**. Streams, clips, and the behaviors presented in them are later commented on by other users and content creators. Additionally, unethical streamers often create special social media groups for their fans.

Harmful live streams have no predefined length – some are relatively short, but some can last hours. Apart from the camera feed (usually a single-camera setup, video and audio transmission), live streams include messages displayed on screen, read out by the streamer or by a text-to-speech application. These messages often inform the viewers about the possibility of donating money to the stream, the goals of the fundraising, and the users who donated the most money, but they are also used to remind the viewers about subscribing to the channel. Sometimes, streamers will engage in **roulette chats** or instigate **raids**, and clips from these activities often end up compiled into **highlight** videos (see glossary).

Viewers of such unethical streams will often see other people join the streamers for their live shows. For some of them (people with intellectual disabilities or under the influence of alcohol or psychoactive substances), one cannot be entirely sure whether they actually agreed to take part in the activity and whether they are even aware they are being streamed live. Some, of course, do it of their own volition.

Unethical streamers do what they do in order to satisfy their hunger for popularity, but also because they make money off their streams. They will often encourage their viewers to **donate money** to the streams via donation platforms. In some cases, the funds raised go toward particular causes (e.g., they are used to pay for more alcohol). Through donations, the viewers can also influence what the streamers will do next. For example, the streamers will pour dif-

ferent kinds of alcoholic beverages into a single big container and drink the mixture when the donations hit a particular monetary goal. Some streamers are able to monetize the popularity gained through publishing harmful content – some collaborate with TV channels, while some sign cage-fighting contracts.

Although at first glance, it may appear that unethical and toxic streamers can only profit from their inappropriate or illegal content, in the long run, this sort of activity carries the risk of criminal or civil liability. Many of their actions **constitute misdemeanors** (such as using swear words in public) or even **felonies** (such as hate crimes, assault and battery, contributing to the delinquency of minors, subjecting minors to pornography, gross imposition of a minor, violation of bodily integrity, verbal degradation, defamation, public display of pornographic materials, etc.), not to mention the **infringement of moral rights** (which makes them subject to civil liability). The stories of many trash streamers prove that sooner or later, through their illicit activities, they incur criminal liability and end up prosecuted. It is especially important in our case that even the viewers of unethical live streams who encourage the streamers to do something that constitutes a crime or donate money to such acts may be held accountable for criminal solicitation, inciting or instigation, aiding and abetting, or co-perpetration.

The content that trash streamers show on their channels is not only illegal but morally reprehensible and harmful. Why, then, do people watch such streams? A study conducted in 2019[1] indicated that adolescents are motivated by such factors as curiosity, boredom, the need for entertainment, and the need to stay on top of online trends. Interestingly, the vast majority of the respondents (88%) said that they found watching unethical streaming content disturbing. A similar percentage saw such content as harmful and as incitement to replicate the disruptive and unethical behaviors presented (87%), and 82% believed that the live-streaming of social pathologies should be prohibited. Almost 40% of the surveyed agreed, however, that publishing such content online is a good way to make money and that trash streams show life as it is.

The phenomenon of unethical streaming is relatively new and it is still being researched and analyzed, as is its impact on the viewers. Other studies show that the more widespread **hate speech** is in one's community, the greater its acceptance and the less need one feels to react to it. The same is true for other pathological and harmful behaviors. Trash streamers, much like regular YouTubers, can become influencers and online personalities, and can change the ways in which young people behave and talk. The sooner one realizes this, the better.

What to do when you come across live-streaming of harmful or illegal content?

- Report it to the administrators of the platform on which the content is being streamed. Administrators do not have to agree with us when we say that content breaks the rules of the platform or the law, but they are legally required to respond to our report, verify whether the reported content breaks any regulations, and issue a decision.
- Secure the content – when a live stream ends, it may be gone forever, as it is up to the streamer whether they save the video for later uploads. We should remember, however, that certain recorded situations may constitute evidence of a crime. Securing them as evidence requires us to take further steps, namely reporting the streamer to the appropriate authorities.

1. The survey conducted in Poland involved quantitative (online survey, sample size N = 400, ages 13-15, sample representative of population as regards gender and hometown population size) and qualitative research (four group interviews with adolescents). Source: *Patotreści w Internecie. Raport o problemie* (*Pathological Internet Content. A Report on the Problem*) by the Fundacja Dajemy Dzieciom Siłę foundation, Warsaw, 2019

- Notify the authorities and report a possible crime. By doing this, we can help the injured parties (the victims), many of whom are unable to defend or fight for themselves.

One should definitely not encourage unethical streamers to carry on with their "work", sponsor them by donating to their channels, or share their harmful content, especially if one does not want to risk being tried as an accessory. The way social media algorithms work, simply by viewing unethical streaming content, one helps increase the channel's reach and visibility, and, therefore, may feel complicit in increasing its popularity. Simply watching such content is not enough for a person to be held legally accountable, but it remains questionable from an ethical standpoint.

GLOSSARY

clip	a short video of a part of a live stream, recorded and uploaded by a viewer.
donations	a way of financing unethical streaming; money can be donated to content creators via special donation platforms and programs.
hate speech	„[covers] all forms of expression that spread, incite, promote or justify racial hatred, xenophobia, anti-Semitism or other forms of hatred based on intolerance, including: intolerance expressed by aggressive nationalism and ethnocentrism, discrimination and hostility against minorities, migrants and people of immigrant origin."[2]
highlights	the most interesting parts of a live stream, recorded and saved as clips, often collected in compilation videos; they have the potential to go viral.
raid	an online attack whereby a streamer urges their viewers to flood another streamer's channels or live streams with insulting comments.
roulette chat	video-chatting with (usually) random people with whom the streamer connects via a chosen application (named after the Chatroulette website and service).
social pathology (deviance)	behavior that violates social norms or societal values.
stream	real-time online transmission, a live broadcast.
trash/unethical streaming	a kind of harmful content; live transmissions of behaviors that violate social norms.

2. Recommendation R (97) 20 of the Committee of Ministers of the Council of Europe on hate speech.

unethical/illegal/harmful content	content published on the web in the form of Internet transmissions (streaming), short videos cut from recorded live streams (clips), full-length videos, photos, or other related media showing the author or authors exhibiting behaviors that violate social norms and aim to demoralize and offend – including physical, psychological, and sexual violence, alcohol abuse, verbal degradation, drug use, etc.
viral	used to describe Internet content that becomes immensely popular over a short period of time; such content may be said to have *gone viral*.

LESSON PLAN

Objectives

The students:

- know what unethical content and unethical streaming are;
- understand that unethical content may be harmful to people and that some of it may even be illegal;
- know how unethical streaming is financed and understand the role played in financing them by their viewers;
- understand the potential consequences of creating unethical content or taking part in unethical streams;
- know how and to whom to report unethical content.

Materials

- printed-out streamer stories (Appendix)

EXPERIENCE (15 minutes)

1. Divide the students into small groups and give each group a story about a streamer to read (see appendixes). Ask the teams to familiarize themselves with the texts, discuss them based on the questions provided, and write down their answers. For example, three groups can analyze the first story and three can analyze the second one.

2. Invite volunteers to read the stories aloud so the whole class can hear them.

3. Listen together to what the groups have written in response to the questions.

REFLECTION (15 minutes)

Discuss the stories with the students using the following questions:

- What are your feelings after reading Anna and Adam's stories?
- What did you find most thought-provoking, disturbing, or interesting in these stories?
- Do you see any similarities in the motivations of the characters?
- How did their strategies differ?
- Why did they have followers?
- Do you know any similar stories?

Take note!
Students may share stories about cruel or vulgar online content. If you find this difficult or risky, skip this question.

- Do you know what unethical streaming is? (You can ask about trash streaming or use a local equivalent, if one exists in your language and seems applicable.)
- Do you think Anna's story is an example of unethical streaming? Why?

THEORY (5 minutes)

Explain to the students that the content Anna was uploading was unethical, harmful, and illegal. Using the Overview for Educators section, define harmful and illegal content, and unethical (or trash) streaming. Following up on the Reflection stage, summarize the ways in which this phenomenon harms people and who its victims are. Discuss the potential consequences of streaming unethical content, both legal and psychological. **Emphasize that watching harmful content and donating money to its creators contributes to increasing the visibility and popularity of unethical streamers, and may encourage more people to join their ranks.** Make sure your students understand that the only people who can profit or otherwise gain something from unethical streaming are the streamers, but even in their case, those gains are ill-gotten and morally dubious due to the significant risks and losses incurred by harmful content creators. Add that it is much better to use our best skills and abilities when creating content to share online.

PRACTICE (10 minutes)

Ask the students to individually consider what they may do the next time they encounter harmful online content. How are they going to react? Volunteers can share their thoughts with the rest of the class.

Extension activity
If time permits, and if you would like to do a follow-up activity, consider the suggestion below:

Ask the students to work in the same groups as earlier. Encourage them to draw up „streamer guides" – have them brainstorm ideas and write down what streamers should pay attention to in order to make their content attractive and engaging for everyone.

Appendix

Story 1

Anna posted her first live stream in March. She was walking down the street with some friends, making fun of the people they passed. Only five people watched the livestream, but somebody made some clips from it. Anna's YouTube channel was growing, which encouraged her to go on. After a month, her live streams were watched by some 300-400 viewers. She recorded in local parks, alone or with one or two friends. They would sit, loiter around, drink beer, laugh at people, and sometimes harass passers-by. Anna's viewers particularly liked the bit in which she and her friends were spitting into an empty beer can standing on the sidewalk, forcing pedestrians to walk around it, and the scuffle with a girl who didn't and got spat on.

Later, Anna found an abandoned tenement house and started recording her live streams there. There were more beer-drinking, viral challenges, spitting on people, and then running away or getting into shouting matches. At its peak moments, Anna's streams were watched by up to 1000 people. Her young viewers liked the fact that the person streaming such content was a girl. The fan-given nickname "Vulgar Chick" stuck. Her followers were donating money to the channel, but also daring Anna to cross more boundaries. The money was good. Anna could afford nice clothes, a new phone, and good food. But she still wasn't making enough to move out of her parents' place. She was spending money very quickly.

Once, she got into a fight with a passer-by. Another time, she pretended to be a police officer in plain clothes and chased after young people who broke some real or made-up laws. She even gave somebody a fake ticket and extorted fine money.

Eventually, clips from her streams reached the school administration. The administrators recorded Anna's next livestream and notified the police and other authorities. Today, Anna has a probation officer and several court cases. Some of them she's already lost. She has to pay fines that tally up to several thousand euros. But because Anna doesn't have any money left, she is facing the possibility of jail time.

Discussion questions

- Why did Anna start uploading content? What personal needs was she trying to fulfill this way?
- What, if anything, did she gain by publishing online content (before the school administration intervened)?
- Did she risk anything?
- Why did people watch her streams? What personal needs where they, in turn, addressing? What did they get from her content?
- What did the people who recorded together with Anna get out of participating in her streams? Did they gain or lose anything (during the streams or in the future)?
- How might the people who were filmed (without their consent) have felt and reacted?

Story 2

Adam had always been interested in new technologies. He knew many useful apps and liked to talk to people about ways of doing things more efficiently. All you had to do was say what you needed and Adam would tell you what program or app to use.

Eventually, Adam decided to start his own YouTube channel and share his passion for technology with online viewers. A friend convinced him to do it. Over the first several weeks, the channel's popularity was growing at a slow pace. Adam was struggling and getting stressed out. Commenters were hating on him and he almost gave up, but his friend's brother, who had experience with live-streaming, helped him out. He loaned Adam a good camera and suggested that his videos be scripted and altogether shorter. Adam came up with the idea to start doing online what he did so well among friends, and what people actually appreciated. His viewers could ask him questions in the comments, and he would respond in the next video. He even started doing polls about what to make his upcoming videos about.

Twice, he had guests in his videos. The first was a friend who tested apps with him. The second was another YouTuber who ran a similar channel. That was Adam's first ever live stream. His viewership kept increasing. At this moment, his most popular episode is the one about ChatGPT and ways to use it to make school easier, but without breaking any laws. It has been viewed by several thousand people, though some of Adam's teachers didn't really like it.

In time, Adam started to make money off ads. He even got his first job offer – a local start-up asked him to test their app.

Hate? Adam still gets a lot of it, but he can handle it. Especially since some of the commenters started to defend him against the trolls and write good things about him. He was never popular at school, far from it, but his fellow students started to notice and recognize him.

Discussion questions

- Why did Adam start uploading content? What personal needs was he addressing?
- What, if anything, did he gain at the time of publishing his videos?
- Did he risk anything?
- What, if anything, might he potentially gain in the future?
- Why did he have viewers? What needs were they addressing by watching his videos?
- What did his guests get from appearing on his channel? Did they gain or lose from it (at the time of shooting the videos and in the future)?

Understanding Myself Online

5. Maintain Digital Balance!

OVERVIEW FOR EDUCATORS

The world of the Internet has been designed to constantly grab and divert our attention. The default settings of social media and the apps we install on our phones are geared toward maximizing our screentime, i.e., the time we spend using them. This is why we keep getting notified about everything. New social media content, our friends' reels and stories, clips and ads make the dopamine levels in our brains spike, which, in turn, makes it difficult for us to go offline. No wonder, then, that we often tend to react very quickly to incoming notifications and likes, and that we keep **scrolling** for new content with such gusto. Psychologists call this state the **inability to delay gratification** or, sometimes, delay aversion.

Increased or even excessive Internet use may be linked to the phenomenon known as **FOMO**, or fear of missing out, which can be simplified as the fear of going offline. The perceived need to stay up to date with, for example, social media, can result in problems with focusing on other activities. Adolescents are among the age groups most vulnerable to FOMO.[1]

> Researchers point out that excessive technology use and stimulus overload (sensory and information overload), especially in children and adolescents, can significantly impact daily functioning and health. They can negatively influence focus and concentration, cause headaches, stress, insomnia, and even psychological disorders. In light of the above, promoting digital hygiene (using the web in a more conscious and intentional way, and fostering healthy habits) becomes essential, as is striving toward digital wellbeing.

Digital wellbeing (also known as digital wellness or digital health) is the subjective feeling that one is using digital technologies in an optimal manner. This is the state of comfort brought about by maintaining a balance between using the Internet and other daily activities.

One should bear in mind that one's digital wellbeing, just like one's mood in general, is influenced by various factors – like one's family and school situation, the relationships one has, and one's outlook on life – even the time of day.

Wellbeing is a personal matter – digital behaviors that have a positive influence on some people may turn out to be detrimental to others. For example, one person playing a video game may feel satisfied with the new skills the game helped them develop, while that person's

1. The focus group study *FOMO 2022. Polacy a lęk przed odłączeniem report* (*FOMO 2022. Poles and the fear of missing out*) revealed that one in three teenagers suffer from chronic or intense fear of being disconnected from social media and information, and only 6% report not experiencing this problem.

peers may find the game's art style too dark or the musical score too foreboding for comfort.

The path to digital wellbeing is not simply about limiting one's use of digital tools or minimizing the time one spends online but, first and foremost, in developing an awareness of one's digital behaviors and habits and understanding how they influence one's mood. It's important that young people learn how to recognize their own needs related to functioning in the digital world, how to derive satisfaction from using technology, and how to handle the risks that online activities entail.

GLOSSARY

digital wellbeing	the subjective feeling a person has that they are using digital technology in an optimal manner; the state of comfort derived from maintaining a balance between using the Internet and doing daily offline activities.
FOMO	(*fear of missing out*) – the fear that we may miss out on something if we go or stay offline.
inability to delay gratification	(delay aversion) – inability to postpone activities we perceive as pleasant or attractive in some way.
scrolling	moving text and/or other information up and down the screen of an electronic device.

LESSON PLAN

Objectives

The students:

- understand the part technology and digital media play in their lives and the ways in which they can influence their mood;
- know what digital wellbeing is;
- know how to take care of their digital wellbeing.

OPTION 1

Take note!

This variant is intended for groups of five or six. It requires the students to share some personal information with their teams and talk about their feelings and emotions. As this requires openness and mutual acceptance, put some thought into how you divide the class into groups. If you know that particular students will not work well together, consider putting them on different teams.

Materials (for each of the groups)

- a blank sheet of paper (preferably A3)
- sticky notes, one color per team
- pens or markers, two different colors per team

EXPERIENCE (15 minutes)

Group activity

You must have heard adults complaining that you spend all of your free time online, wasting it. Is that really the case? Let us find out! Working in groups, you will put together an informational poster detailing how an average teen spends their time.

1. First, brainstorm ideas. List and write down all the offline and online activities that you do on a daily basis, like doing your homework, messaging on social media, shopping, playing games, reading, listening to music, etc. Write those down on the sticky notes (one activity per note) and stick them on the paper.

2. Next, decide and write down how much time the activities you have listed take your group on average. Arrange the sticky notes on your posters according to how much time the activities take.

3. Discuss and write down **the benefits of each of the activities** (i.e., why you do them) and **how they affect your mood.**

4. Use one color to mark all the offline activities and another for all the online ones.

REFLECTION (15 minutes)

When the groups are done with the activity, discuss their observations and conclusions.
The following questions should help:

- Did anything shock or surprise you while doing this exercise? What was it?
- Which activities bring you the most benefits or satisfaction and which disrupt your daily routine? Why?
- While you were analyzing your group's ideas, did any of you notice any activities (online or offline) that you would like to start paying more attention to or spending more time on? What are they?
- Are there moments when you feel you have to disconnect from technology? How can you tell? What emotions do you feel in those moments? What signals do your bodies send to you then?
- Are you satisfied with the proportion of the activities you do online to those you do offline? Justify your answer.

THEORY (5 minutes)

Explain the concept of digital wellbeing to the class. Use the information supplied in the Overview for Educators section. Emphasize the fact that our wellbeing is influenced by many different factors, such as our family situation, how well we do at school, the friendships we make and cultivate, and even the time of day. It is important to make the students realize that one's wellbeing is highly individual. Digital habits and behaviors that have a positive influence on some people may turn out to be distracting or destructive to others. Emphasize that in order to attain digital wellbeing, one does not only have to limit one's use of digital tools or minimize the time one spends online. If anything, one needs to be more aware of one's needs and habits, and to understand the ways in which they influence one's mood and the ability to use available tools optimally. This is why listening to oneself is so important.

PRACTICE (10 minutes)

Divide the students into the same groups as in the previous exercise.

Group activity

1. Look at your notes and rearrange them again. This time, divide the activities into two categories – those that are good for your wellbeing and that you would like to spend more time on, and those that it would be wise to limit. Base your decisions on the conclusions you have drawn from our discussion.

2. Next, come up with two or three ideas (per group) for things you could do in the near future to increase your digital wellbeing.

OPTION 2 – INDIVIDUAL WORK

Materials

- printed worksheets (Appendixes 1 & 2)

EXPERIENCE (15–20 minutes)

Hand the worksheets out to the students and ask them to do a little soul-searching. In the left-hand column of the worksheet, they will find moods, feelings, and emotional states. The goal of the exercise is to fill the right-hand column with online activities that cause every person in the group to experience respective emotions or states.

Exercise worksheet for the students

Think about your daily activities that require Internet access. For each of the following emotions or states, try to identify an activity that makes you experience it.

- Excitement
- Distraction/lack of focus
- Fulfillment
- Pressure
- Happiness/contentment
- Anxiety
- Relaxation
- Headache/eye ache
- Sense of belonging
- Tiredness
- Sense of safety
- Danger/fear
- Sadness/depression
- Amusement



Tip

If you think your students could benefit from it, after they have filled in their tables, have them form groups of four or five and compare their answers.

REFLECTION (10 minutes)

Ask the students to pair up and talk about the exercise they have just done. If there are any volunteers, you can invite them to share their observations with the rest of the class.

The following questions can help get your students started:

- Which activities and situations cause us to experience pleasant emotions and which bring about difficult or unpleasant ones? Does everybody feel the same?
- Can you point out those activities that cause us to experience both pleasant feelings or sensations and unpleasant states or discomfort? What causes different reactions in different people?

THEORY (5 minutes)

Explain the concept of digital wellbeing to the class. Use the information supplied in the Overview for Educators section. Emphasize the fact that our wellbeing is influenced by many different factors, such as our family situation, how well we do at school, the friendships we make and cultivate, and even the time of day. It is important to make the students realize that one's wellbeing is something highly individual. Digital habits and behaviors that have a positive influence on some people may turn out to be distracting or destructive to others. Emphasize that in order to attain digital wellbeing, one does not only have to limit one's use of digital tools or minimize the time one spends online. If anything, one needs to be more aware of one's needs and habits, and to understand the ways in which they influence one's mood and the ability to use available tools optimally. That is why listening to oneself is so important.

PRACTICE (15 minutes)

Encourage the students to analyze their daily routines and think about moving some activities around their schedules in order to increase their sense of balance and contentment. Hand each student a worksheet (Appendix 2) that will facilitate this task.

Appendix 1

Exercise

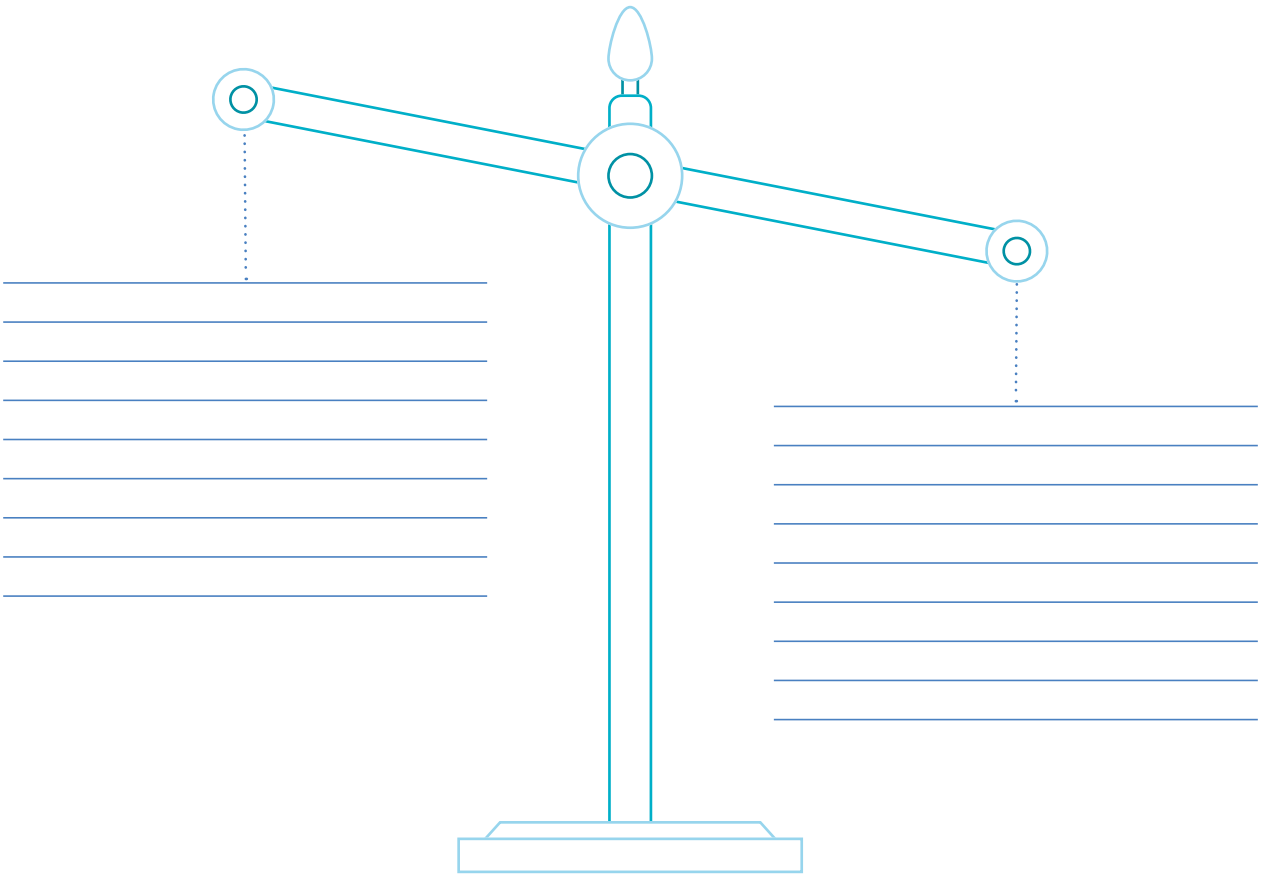
Think about those of your daily activities that require Internet access. Write down the ones that make you feel emotions or experience states like:

- Excitement 
- Distraction/lack of focus 
- Fulfillment 
- Pressure 
- Happiness/contentment 
- Anxiety 
- Relaxation 
- Headache/eye ache 
- Sense of belonging 
- Tiredness 
- Sense of safety 
- Danger/fear 
- Sadness/depression 
- Amusement 

Appendix 2

Exercise

Analyze the table you've filled in again. Are you satisfied with how you use the Internet? Think about what you could change about your online habits in order to maximize your well-being and experience as few unpleasant emotions as possible. On the worksheet, you will see a picture of a simple weighing scale that is out of balance. Over the pan that is tilted down, write those activities that negatively influence your wellbeing. Over the one tilted up, write those that have a positive effect on it.



Think about what you can do to balance the scales (i.e., achieve wellbeing). Note two or three ideas that you can put into practice in the near future.

Module 2

Getting Internet-Smart!

Getting Internet-Smart!

1. How Not to Drown in the Sea of Information?

OVERVIEW FOR EDUCATORS

Evaluation of the credibility of a source of information is a crucial skill if we want to navigate the web in a conscious manner. Without it, we may end up internalizing information that is not based on facts or, even worse, make wrong or ill-informed decisions because of that. This, in turn, can result in negative consequences for our health, safety, or finances. It became particularly evident during the COVID-19 pandemic. In the early months of the pandemic, false information spread online resulted in the deaths of hundreds of people.[1]

One practice that can protect Internet users from the consequences of online misinformation (and disinformation) is replacing the passive reception and consumption of content (e.g., on social media) with conscious and thoughtful information screening and precise searches. Thanks to such a conscious approach, we can access the issues that interest us directly and rely on credible sources. The so-called **Big6 model**, an information literacy problem-solving tool, can be a big help. This model consists of six stages, or questions, which facilitate obtaining reliable information. According to the principles of the Big6 model, the search for credible online information should proceed using the following steps:

1. **Task definition** (What information am I missing?)
2. **Information-seeking strategies** (Which sources can I use to find this information?)
3. **Location and access** (Is the selected source available and does it contain the information I need?)
4. **Use of information** (Analysis of the source – which information is the most important?)
5. **Synthesis** (Use of information – how do I present my search results?)
6. **Evaluation** (Summary – to what extent have I solved the problem? What can I do better in the future?)

If, on the other hand, we encounter information that we are not sure is credible or accurate, but that is important enough to potentially influence our decisions, health, or safety, we should check who the author is. This approach is much more efficient than the painstaking verification of every individual statement. If the credibility of an author, website, or entire medium is compromised, we may learn to approach any content from that source with greater caution. When verifying the credibility of a source, however, we need to ask ourselves a few questions. They form the basis of the **lateral reading**[2] method, which is successfully used by fact-checkers[3] – the people who verify information professionally.

1. Coleman, Alistair. *"‚Hundreds dead' because of Covid-19 misinformation." BBC*, 12 August 2020, https://www.bbc.com/news/world-53755067. Accessed 20 June 2024
2. News Literacy Project. *"Expand your view with lateral reading." News Literacy Project*, https://newslit.org/tips-tools/expand-your-view-with-lateral-reading/. Accessed 20 June 2024.
3. Spector, Carrie. "Stanford scholars observe ‚experts' to see how they evaluate the credibility of information online." StanfordReport, 24 October 2017, https://news.stanford.edu/2017/10/24/fact-checkers-outperform-historians-evaluating-online-information/. Accessed 20 June 2024.

The lateral reading method involves determining the credibility of an Internet information source based on other, verified and reliable sources. Instead of spending time performing detailed analysis of particular elements of the website (its contents, the *About* section, or even its graphics), which can mislead the user or embellish reality, try looking for information about the source itself, but outside of it – on different, trustworthy websites. Try to answer the following questions as you do:

- Who is the author of the information? Who owns the website?
- How does the author finance their activities?
- What else do they do?
- Why did they publish this information?
- Can they benefit from publishing incomplete information?

This method may also come in handy when we want to check the credentials of a person claiming to be an expert in a field. Thanks to, or rather, because of social media and due to careless research in traditional media newsrooms and editorial boards, false experts have the chance to gain credibility in the eyes of thousands of people. This way, false information can influence popular opinion. Establishing a person's credibility may be time-consuming but it is worth putting in the effort, especially if the content published by that person concerns health or other sensitive topics.

GLOSSARY

credible source of information — a source that accurately presents reality and is created in accordance with scientific or journalistic standards, or one created by a widely trusted institution.

lateral reading — a method of determining the credibility of a source of information by gathering information about it from other, independent and reliable sources.

LESSON PLAN

Objectives

The students:

- will understand the differences between various types of information sources;
- can evaluate the credibility of a given source of information;
- are developing the habit of verifying information using other, independent sources.

Materials

- some note paper (small slips of paper; 6-10 pcs)
- questions for reflection (Appendix 1)

4.Glanc, Marta. "Fałszywi eksperci są wśród nas. Mogą podać się za kogokolwiek (False experts are among us, and they can pretend to be anyone)." *Demagog*, 12 May 2023, /https://demagog.org.pl/analizy_i_raporty/falszywi-eksperci-sa-wsrod-nas-moga-podac-sie-za-kogokolwiek/. Accessed 20 June 2024.

- computers, tablets, or smartphones with Internet access
- table template (Appendix 2)
- examples of harmful information (find those in the Theory section)

EXPERIENCE (20 minutes)

Divide the class into groups of three. Explain that their task is going to be to search for reliable information on a given subject. Half of the class will use sources of their own choosing and will be provided with a list of reflection questions (Appendix 1) as a research aid. The other half will not be provided with the questions and will have to use a pre-established social medium or some other source of information that is popular among teenagers.

Give the groups 10 minutes to complete the task. Two students from each team are responsible for gathering information (they can use tablets or computers provided by the school, or their own phones with Internet access), and the third student for writing it down and making a list of the sources (websites and accounts) the other two found during the experiment.

Next, ask the students to take 5 minutes to write which of the listed sources they believe to be credible, and which not so much, and to justify their opinions. They can use the table template provided (Appendix 2).



Tips

You can ask the class to search for information on any topic, combining the lesson on reliable information sources with fulfilling the requirements of the curriculum.

Suggested topics for selected subjects:

- **geography:** What are the causes of climate change?
- **biology:** Is GMO food safe for people to eat?
- **physics:** How safe are nuclear power plants compared to other Energy sources?
- **history:** What were the consequences of World War I?
- **homeroom/advisory class:** How can we deal with depression?

To ensure a variety of examples, prepare slips of paper before the lesson with the names of different sources (e.g., YouTube, TikTok, Wikipedia, Instagram, conversation with a teacher, schoolbook) that the teams who are not using the reflection questions will draw at random.

REFLECTION (10 minutes)

Summarize the exercise together with the class. The following questions should help:

- What information did you find while doing the exercise?
- What sources of information did you use or were suggested by the social media algorithm?
- How did you evaluate the credibility of the sources?

- Why did some of the information appear important, interesting, or inspiring, and some did not?
- How do you usually search for information? How can this experience help you improve your search process?



Tip

Bear in mind that students may present a different perspective on the credibility of the discussed sources of information, claiming, for example, that the content creators they know and follow are credible. Consider all the viewpoints and allow the students to discuss the matter and exchange arguments. This way, the class will be better able to understand that the credibility of a source is determined by far more factors than just the communication channel used.

THEORY (5 minutes)

Present some examples of information from unreliable sources that have or could have caused harm if people believed them to be true.

Example unreliable information:

- @BarbaraOneillAU is an Australian promoter of alternative medicine who spreads misleading information about health and treatments, including amygdalin (also known as vitamin B17), which she claims is a cure for cancer. This claim has been analyzed by the UK fact-checking site *Full Fact*, among others: https://fullfact.org/health/vitamin-B17-cancer/

Using the selected example, explain how to determine the credibility of a source. Do this using the lateral reading method described in the Overview for Educators section. If the group is more advanced, explain why facts and interpretations in the field from the chosen example have been debated by scientists, philosophers, journalists, or politicians, and explain how contemporary science understands the issue. You can also mention which standards of fact evaluation are applied within your academic discipline. This way, you can fulfill the curriculum requirements for the critical analysis of sources.

PRACTICE (10 minutes)

Using the time left until the end of the lesson, check with the students whether any of the social media accounts or pages they follow are questionable in terms of credibility or have changed their content over time. The students might decide that they should stop following those sources and replace them with new and more credible ones. Another solution is to add new, credible sources to their feeds – ones that will allow them to compare informational content across platforms.

Reflection questions:

1. What information am I missing?
2. Where can I find the information I need?
3. Which sources will be the most helpful?
4. Is the selected source available?
5. Does it contain the information I need?

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Appendix 2

Content of the information	Source of the information	Source credibility rating on a scale of 1 (unreliable/not credible) to 5 (highly credible)	Evaluation of the usefulness of the information: very important/moderately important/unimportant, interesting, inspiring

Getting Internet-Smart!

2. Don't Get Trapped in a Bubble

OVERVIEW FOR EDUCATORS

It is safe to assume that most people with even the vaguest interest in the topic of misinformation and disinformation are familiar with the concept of the **filter bubble** (sometimes called an online or information bubble). This term is used to describe a situation in which, because of our decisions and the work of Internet **algorithms**, we are presented with a curated selection of content that usually aligns with our beliefs and previous choices. As a result of this, we can unwittingly find ourselves trapped in this bubble, only observing a narrow slice of social reality while believing it to be representative of the entire society.

The phenomenon of the filter bubble is driven by the personalization and recommendation mechanisms that select the content displayed to the user based on their past behaviors (their so-called click-behavior). These mechanisms, curation algorithms, rely on hundreds of variables but, due to the lack of transparency on the part of the tech giants, only a small portion of those are known to the public. Among the factors that influence what sort of content the algorithms of any given platform suggest to us are the accounts we follow, our location, the comments we have written, our likes and other reactions, and even the time spent on any given piece of content, translated into how long we were looking at a given video or photo.

Another reason for the rapid spread of confirmation bias is the social media groups that bring together people with similar beliefs, isolating them from outside perspectives. If a given group only accepts information that confirms the members' preconceived beliefs (e.g., that vaccines are harmful), it creates an echo chamber. Just like in a deep cave, where any words spoken echo off the walls and return to the speaker's ears amplified and multiplied, some opinions are endlessly repeated and reinforced in online groups.

To be fair, social media groups do not always have to involve the dissemination of false information. They can be places of mutual support and safe online spaces for people facing similar problems. This refers to representatives of minority groups, but also to people in similar life situations, e.g., those thinking of changing careers and looking for advice on how to do it. Even if a group was founded in good faith, one should remain vigilant – bad actors intent on spreading disinformation may try to profit off groups of people addressing shared needs to generate political capital or publicity, or by infiltrating them and trying to sell the members pseudoscientific products.

GLOSSARY

algorithms sets of rules and procedures used by social media platforms to sort and filter content to be displayed in the users' news feeds or as part of their search results.

echo chamber — confirmation of one's previously held beliefs by way of repeated exposure to the same content within a closed circle of people and because of limited access to different views, e.g., in private social media groups.

filter bubble — a situation in which, because of our choices or the workings of online algorithms, we are fed a curated selection of content that usually agrees with our beliefs.

newsfeed — the news displayed on social media; e.g., on Facebook, when opened in a web browser, the middle section is the newsfeed.

personalization — the process of adjusting the content displayed to users to their preferences, behaviors, interaction history, and other demographic or behavioral data gathered by Internet services (e.g., search engines and social media platforms). Personalization algorithms use various kinds of data, such as the user's click-behavior, their likes, comments, or geolocation data, in order to predict what content they will find the most attractive.

social media — Internet platforms or mobile apps that allow their users to create, comment, and share content, and to interact with other people, e.g., in interest-based groups. Example social media: Facebook, Instagram, Snapchat, TikTok, BeReal, X, LinkedIn, and YouTube.

LESSON PLAN

Objectives

The students:

- know what a filter bubble is and how content personalization on social media works;
- can point to potential threats and benefits of content personalization;
- take actions to learn perspectives different from their own.

Materials

- printed-out reports (Appendix 1)
- slips of paper with the names of social groups or people (Appendix 2)
- sheets of A4 and A3 paper
- board/flipchart, marker pens
- scissors
- a box or a hat
- magnets or adhesive tape
- pens and markers

Tip

The exercises included in this lesson plan touch upon phenomena present on social media platforms, but they do not require either you or the class to be users of those platforms (if you do not have accounts there or do not want to share your personal experiences with others). However, if your students would like to examine their social media profiles and agree to such an exercise, feel free to go with the second variant described at the end of this lesson plan.

EXPERIENCE (20 minutes)

1. Divide the class into groups of two or three. Each group draws one of the reports (Appendix 1) and one social group or person (Appendix 2).

   The reports are brief, factual, and unembellished accounts of events. You can use the examples suggested or write your own, based on topics recently covered in your lessons.

   Give the teams several minutes to read their reports and ask the students to rewrite them (on a separate sheet of paper) from the perspective of the social group or the person their group has drawn. Emphasize that every piece of information they write, every opinion, sentiment, or quoted statement – irrespective of whether it is one or more sentences long – should be written on a new line.

2. While the students are working on the task, write on the board or put on the wall three profiles of Internet users prepared before the lesson. It is important that these profiles are very different from each other, e.g.:

   - Alex: 16 years old, loves parties and music, never says no to sweets
   - Elle: 68 years old, leads a healthy lifestyle, owns a cat, fond of sensational news
   - Tom: 45 years old, father of a teenage daughter, busy entrepreneur, owns a dog

3. When the students are done writing down new versions of the reports, ask them to cut their accounts into strips, put them in a box or hat, and mix them up. Then, ask every student to draw one strip and, using adhesive tape, stick it next to the profile of the person (web user) they think would be especially interested or moved by its contents.

REFLECTION (10 minutes)

Ask the students the following reflection questions:

- What changes to the original report did you make while adjusting it to the perspective of the social group or person you have drawn? Why?
- What criteria did you use while assigning the strips with information to particular characters? Provide specific examples.

Explain to the class that what they have just done offline, in an analog way, was **personalization**. Ask the students if they have encountered this concept before. If not, explain it to them.

You can use the definitions from the glossary.

Ask the students to consider:

- Where and when does a similar phenomenon occur online?
- What are the benefits of content personalization mechanisms? And the dangers?

THEORY (5 minutes)

Explain to the class that the content displayed and suggested to us by a given social media platform is curated for us based on hundreds, if not thousands, of variables. It depends not only on the content we have already liked, the comments we have written, and the accounts we follow, but also on the amount of time we spend on similar content. It is impossible to learn how exactly social media algorithms work, because the companies that create them refuse to publicize information on the subject.

During the discussion, your students may mention the filter bubble phenomenon themselves. If they do not, ask them if they know what the term means and how it relates to content personalization on social media. The **filter bubble** is the name of the situation whereby an Internet user is effectively fed algorithmically curated content selected on the basis of their previous Internet searches and the content they watched or interacted with, which, in turn, limits the user's exposure to different worldviews. The term *filter bubble* is a scientific one that is often found in specialist literature; the phenomenon itself is often referred to as *information bubble* or just *online bubble*.

Another phenomenon that occurs online is the so-called **echo chamber**. This term refers to a space (e.g., a social media group) whose users only have access to information that aligns with their worldviews, which serves only to solidify their already held beliefs, as they cannot be confronted with other perspectives. Echo chambers are conducive to social polarization.

PRACTICE (10 minutes)

OPTION 1

Ask the students to go back to the groups from the previous exercise and create simple sketchnotes (visual notes) or posters illustrating one of the phenomena presented during the lesson. You can put them up somewhere where other students and teachers will be able to see them (e.g., on a noticeboard or as school corridor displays) or post them on the school's social media, which will enable even more people to see them.

OPTION 2

If the students agree, you can invite them to examine their own news feeds (the latest news and other information on social media). Ask each student to write down keywords representative of the content displayed in their feeds on a chosen platform (e.g., TikTok or Instagram) and to consider and then write down which elements of their past online activity could have been used by the algorithm to personalize the content curated for them.

Encourage volunteers to share their conclusions with the rest of the class.

Story 1

The New Year's Eve celebration promises to be even grander than before. City authorities have announced that residents will welcome the New Year in the company of local bands that will play on a stage designed especially for this occasion. Precisely at midnight, the sky over the city will light up, as the highlight of the event is going to be a fireworks display. The festivities will be held in the newly revitalized main square and will commence at 9 p.m.

Story 2

Last night, in an apartment on Bahama Street, a bull terrier seriously injured a 15-year-old boy. The incident occurred during a birthday party for the boy's 18-year-old friend held in a rented apartment. The teenager was taken to hospital with serious leg injuries after one of the attendees called an ambulance. According to witnesses, the dog attacked the boy unexpectedly and without a clear cause. Authorities are investigating why the incident occurred and whether the owner of the animal, who was also present, was supervising it.

Story 3

In the early afternoon on Saturday, a city councillor seeking reelection, Sebastian Thomas, posted on social media about his serious case of food poisoning. According to the information provided by the councillor, the cause of the poisoning was allegedly ice cream he had eaten the previous day at a neighborhood fair, during which he was encouraging the citizens to participate in the upcoming election. Photos published by the politician's campaign staff identify the vendor accused in the post. The matter has been reported to the appropriate authorities who have announced an inspection of the ice cream vendor and testing of the samples secured.

Appendix 2

Example social groups and people – to be cut up and drawn.
(You may change or add groups to the list, whatever fits your ideas for the lesson.)



Dog lovers



Cat lovers



Pensioners



Entrepreneurs



Spokesperson for the emergency medical services



Local politicians



Ecologists



Local townspeople

Getting Internet-Smart!

3. On the Track of Disinformation

OVERVIEW FOR EDUCATORS

The role of journalism is to provide readers and viewers with accurate information about reality. *The Digital News Report 2024*,[1] however, reveals that much of the public worldwide does not trust most news most of the time. While trust levels vary significantly by country and brand, this year's report shows that only 40% of respondents across 47 markets trust most news. Not a good result for the journalists.

There are many likely reasons for this declining trust in the media: the omnipresent ads, the attention-grabbing but ultimately unreliable headlines (**clickbait**), mixing facts with opinions (and other forms of **manipulation**), as well as the overt involvement of media platforms and editorial offices in politics, most often in order to mobilize the electorate of the party a given media outlet is, more or less openly, affiliated with (in Polish public discourse, the term used for such politicized media is *media tożsamościowe* or *identity media*). Media manipulation can take many different forms. One of them is so-called **framing**, a situation whereby a journalist only reports on selected aspects of an issue, which can suggest or impose a particular interpretation, irrespective of whether or not the framing of the news was deliberate. Another example of framing is much more literal and refers to the way a media video feed is framed, often leaving out important parts of the scene being broadcast. The media can mislead audiences in much simpler ways, though. One of them involves combining news reports with opinion journalism, meaning that personal opinion comes across as a fact rather than as an interpretation of facts.

The low level of trust in journalists and the media, as well as the influence of technological innovations on how our media consumption habits change, make us look for information about the world in new places, e.g., on social media. The recommendation algorithms that decide what content will be displayed may supply us with information from unreliable sources. This means that we can accidentally stumble upon so-called **fake news**, deliberately misleading content made in such a way as to be indistinguishable from credible media reports and to gain our trust. Fake news is created in order to grab the attention of social media users and to generate ad revenue in the process. When a website gets a lot of views, i.e., is accessed by many individual users, advertisers start to associate it with a wide audience of potential consumers.

The mere presence of fake news on social media or websites in general does not necessarily mean that all the content published there is of worse quality than the information delivered by the traditional media. On the contrary, many reporters, journalists, and science communicators do very thorough research before publication, aiming to provide their audiences with the kind of content they have grown to expect (or, in crowdfunding business models, the kind of content they are willing to pay for).

1. Nielsen, Rasmus Kleis, and Richard Fletcher. Public Perspectives on Trust in News. Reuters Institute for the Study of Journalism, 2024, https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2024/public-perspectives-trust-news. Accessed 23 November 2024.

The problem arises when the criteria by which we choose the media content to consume have less to do with the quality of its sources and more with the recommendations made by an online platform's recommendation algorithm.

The media – as opposed to social media platforms – have traditionally been a gatekeeper, a metaphorical guardian deciding what content may or may not reach the ultimate consumer, i.e., the audience. Traditional media rely on certain fail-safes that reduce the likelihood of spreading misleading or plainly false information. Some of those "safety valves" are:

- relying on information from credible and independent sources,
- verification of all the data available on the issue at hand,
- presenting facts in the most balanced and unbiased way possible,
- honestly representing various perspectives on a given issue.

These principles are called *journalistic standards*. One can learn more about them from the codes of ethics drawn up by individual editorial offices or journalism organizations and associations. Knowledge of the standards for factual reporting enables one to objectively evaluate whether the content published by a given medium is trustworthy and whether it is a source of credible information about the world.

GLOSSARY

clickbait — a title in which important information has been intentionally omitted in order to make the person reading it click on the link and read the rest of the article; often emotionally charged or misleading.

disinformation — false informational content published and shared with malicious intent. Disinformation is usually created with profit in mind but it can also be spread by bad actors to generate publicity or gain political clout.

fake news — false information shared online or released by the traditional media, imitating real information to help achieve a particular goal. Fake news is used, e.g., by politicians who want to discredit media outlets that show them in an unfavorable light or to attack their political opponents.

framing — framing occurs when a journalist covers only selected aspects of an issue, intentionally or unwittingly suggesting a particular interpretation of what they report on to their audiences.

manipulation of information — the mechanism behind disinformation; the distortion of facts with the intent to mislead; the most common manipulations include omitting important context, using correct data to present or support false conclusions, and juxtaposing incomparable data.

misinformation — false information that is spread regardless of whether there is intent to mislead; often, the parties sharing it believe it to be factual, unintentionally presenting misleading information as true.

LESSON PLAN

Objectives

The students:

- can give examples of disinformation and establish the motives of the people spreading it;
- can spot tell-tale signs of disinformation or manipulation in online content;
- know what steps journalists need to take in order for their reports to be credible and accurate, and trust the sources that adhere to the ethics and standards of journalism.

Materials

- two texts that fall short of the standards for factual reporting (Appendix)

EXPERIENCE (25 minutes)

1. Ask the students to read a text that falls short of the journalistic standards for factual reporting – it is plainly not impartial or, for example, omits the perspective of one of the sides of a conflict. You can use one of the example texts from the Appendix or choose a different one that better fits your recent lesson topics. Encourage the students to highlight or underline the fragments that they believe prove that the author is not adhering to the journalistic standards.

2. Next, divide the class into groups and give them 10 minutes to modify the highlighted fragments so that the article becomes unbiased and accurate. They may cross some fragments out and/or add to the text.



Tip

Dividing the class into teams for the purposes of this exercise may provide an opportunity to review some of the knowledge from your previous lessons. If you have already covered the lesson on verifying information, you can assign students to groups at random, by drawing lots – each student draws a slip of paper with the name of a phenomenon on it (e.g., disinformation, conspiracy theory, filter bubble, or echo chamber) and joins others who have drawn the same term. Next, representatives from each group read the names of their phenomena aloud and briefly remind the rest of the class what they are.

3. It is time for the teams to share their results. Ask the groups to appoint representatives who will present their work to the rest of the class. They will take turns describing individual changes that their groups have made to the text, without repeating what others have already said. You can write the results as keywords on the board or flipchart.

REFLECTION (10 minutes)

Ask the class the following reflection questions:

- What emotions did the text make you experience?
- Which fragments of the text point to its author's biases? What is the nature of their manipulation? What did it entail?
- What motivations could have been behind those manipulations? Do you believe it was deliberate (disinformation) or not (misinformation)? Justify your answer. What else could make people decide to engage in disinformation?
- What changes have you made to the text to make it impartial and more accurate?

THEORY (5 minutes)

Explain to the class that providing people with unbiased, factual information is fundamental to the profession of journalism. Standards in this field are regulated by codes of journalistic ethics, which include the following principles:

- relying on information from credible and independent sources,
- verification of all the data available on the issue at hand,
- presenting facts in a way that is as balanced and unbiased as possible,
- honestly representing various perspectives on a given issue.

PRACTICE (10 minutes)

Ask the students to examine the changes they have applied to the original text. Encourage them to draw up a simple code of journalistic ethics in which they will include the principles people in this field should adhere to. Your students can use this list in the future whenever they want to evaluate the credibility of a news article or any other type of journalistic content. They can also compare their code with existing codes of journalistic ethics – either international or those applicable in your country.

Save Students from Smartphones!

Banning smartphone use within school walls is a step toward better education and a healthier environment for our children. By limiting access to these devices, we create an environment where students can fully focus on their studies. Teachers can finally conduct lessons without having to compete with screens for their students' attention. Moreover, this solution fosters good relationships among students, which, in the long run, can positively impact their ability to work together. It is also a matter of equality – by eliminating differences in access to advanced technology, we give all students equal developmental opportunities.



Additionally, it is important to note that the regular use of social media at a young age can negatively impact mental health, leading to addiction or stress from information overload. This is confirmed by data cited in the *Global Education Monitoring Report* by UNESCO. Banning smartphone use in schools is the only effective way to counter these threats. Let Sweden be an example – in 2024, Swedish authorities opted for the removal of display devices from preschools and lower elementary school classes.

An Article for the Teacher to Assist in Verification:

Global Education Monitoring Report, 2023: Technology in Education: A Tool on Whose Terms? UNESCO, 2023, https://unesdoc.unesco.org/ark:/48223/pf0000385723. Accessed 23 November 2024.

Climate Fanatics and Eco-Terrorists are Coming. Protect Your Child!

Climate hysteria is becoming a new ideology in today's world. Beware, as children and teenagers are particularly susceptible to it. Their minds are easily frightened by apocalyptic predictions and from there, it's just a short step to joining a cult and becoming a criminal. We already have some alarming signs: young eco-terrorists block roads, chain themselves to trees, vandalize meat shops, and splash paint on famous artworks just to draw attention to themselves. They usually organize climate strikes on Fridays, adding ideology to mere truancy.

Meanwhile, blind faith in the green transformation will demolish industry and bankrupt the countries that adopt it. Entire regions will suffer from structural unemployment (e.g., due to the sudden closure of mines) and residents will be forced into eco-friendly investments beyond their financial means. This will hit the poor countries of Asia and Africa particularly hard, as neo-colonial European powers once again impose unfavorable solutions on them, blocking their development.



Meanwhile, the level of greenhouse gas emissions, which have always been in the atmosphere, is not decreasing, even in the EU. However, this does not concern our young revolutionaries, whose life experience is as meager as their intelligence. They claim to know better how we should heat our homes, what cars we should drive, and even what utensils we should use to eat our meals. One can only wonder if they will also condemn the Icelandic volcano, whose single eruption emitted more CO_2 than all of humanity has over the past 100 years?

Articles for the Teacher to Assist in Verification:

„*Climate Change in Europe: Facts and Figures.*" *European Parliament*, https://www.europarl.europa.eu/topics/en/article/20180703STO07123/climate-change-in-europe-facts-and-figures. Accessed 23 November 2024.

„*What Do Volcanoes Have to Do with Climate Change?*" *NASA*, https://science.nasa.gov/climate-change/faq/what-do-volcanoes-have-to-do-with-climate-change. Accessed 23 November 2024.

Sethi, Pallavi. „*What Are Climate Misinformation and Disinformation and What Is Their Impact?*" Grantham Research Institute on Climate Change and the Environment, 22 Apr. 2024, https://www.lse.ac.uk/granthaminstitute/explainers/what-are-climate-misinformation-and-disinformation. Accessed 23 November 2024.

Getting Internet-Smart!

4. Critical Thinking in Action – Avoid Manipulation!

OVERVIEW FOR EDUCATORS

At present, there are over 400 fact-checking initiatives worldwide.[1] These entities are dedicated to verifying information, including publicly available statements made by politicians and other influential people, as well as social media content, from simple text posts to images and videos. The only types of informational content that can be fact-checked, though, are those that can be verified through access to data, statistics, substantive analyses, or source documents.

Fact-checking websites are created by non-governmental organizations, academic and scientific institutions, and media groups. You can explore a list of such initiatives, including information about your country, on the website: reporterslab.org/fact-checking/. Overseeing the activities of fact-checkers and ensuring that they adhere to the proper standards are international organizations of information verifiers like the International Fact-Checking Network (IFCN) or the European Fact-Checking Standards Network (EFCSN). Certificates issued by these entities verify that organizations are unbiased, reliable, and transparent in their dealings. Wikipedia, the online encyclopedia created and maintained by an online community, is an interesting case in this regard, given that its authors have developed their own standards for content verification.[2] Analysts working for fact-checking organizations evaluate statements following a precisely described methodology. In their analyses, they explain the verification process step by step so that anyone interested in the matter can replicate it and check for themselves whether any errors or abuse have occurred along the way.

Verification starts with selecting those fragments of a statement that can be evaluated (fact-checked). Opinions – subjective interpretations of events or personal beliefs – cannot be verified and analysts must, therefore, learn the crucial skill of telling opinions from facts (e.g., those containing references to data or events from the past).

Next, the analyst refers to publicly available sources that enable them to evaluate the trustworthiness of the content they are working with. Based on the methodology followed, they assign the statement a descriptive grade (for example for the *demagog.org.pl* website, the grades are *true, partially true, false, manipulation,* and *unverifiable* – for those statements that cannot be verified through any of the available sources), effectively scaling its perceived credibility. **Manipulation** is said to occur when the evaluated statement is proven to be misleading or to distort the facts, especially by omitting an important context, using correct data to present or support false conclusions, or juxtaposing non-comparable data.[3]

1. M.Stencel et al., *With half the planet going to the polls in 2024, fact-checking sputters*, May 30, 2024, https://reporterslab.org/with-half-the-planet-going-to-the-polls-in-2024-fact-checking-sputters/. Accessed 24 November 2024.
2. You can find them here: https://en.wikipedia.org/wiki/Wikipedia:Verifiability. Accessed 16 April 2024.
3. *How do we verify public figures' statements?* https://demagog.org.pl/en/methodology/. Accessed 24 November 2024.

GLOSSARY

context	all the references (facts and circumstances) necessary to properly understand the given information.
fack-checking	method of information verification consisting of several stages. It involves verifying whether all the statements in an article, post, or some other communication are true.
information manipulation	misleading and the distortion of facts, especially by omitting an important context, using correct data to present or support false conclusions or juxtaposing non-comparable data.[4]
media scanning	the process of analyzing media content with the objective of identifying information that can be verified (e.g., those containing references to statistical data, legal acts, or past events).
primary source	the source in which given information first appeared, e.g., a legal act, statistical office data, or an article on a scientific study.

LESSON PLAN

Objectives

The students:

- are able to tell factual information from opinions;
- know how to locate the primary source of a piece of information;
- know how to evaluate whether a piece of information has been manipulated based on data gathered;
- are familiar with chosen fact-checking websites and can explain their role.

Materials

- printed-out worksheets (Appendix 1) – one per group
- prints of the remaining appendixes (you can display them on a screen, too)
- a computer with Internet access
- a projector or a screen
- computers, tablets, or smartphones with Internet access

4. Ibidem.

EXPERIENCE (20 minutes)

1. Ask the students if they know what fact-checkers are. Explain that they are organizations that verify the statements made by public figures, like politicians (e.g., to check if the data they cite is accurate), but also communications like campaign promises or trending social media content, including images and videos.

2. Divide the class into groups of four. Tell the students that each group will be an independent fact-checking editorial team. The teams will compete against each other. The one to complete all the tasks successfully first wins. Reaction speed is very important in fact-checking – the faster a false piece of information gets debunked, the smaller the risk that it will reach a wide audience.

3. Distribute statements made by fictional politicians (the worksheets, Appendix 1) among the groups. Explain that their first task will require them to identify and underline or highlight the verifiable fragments of the statement (numerical data, statistics, and past events). Fact-checkers call this stage of verification **media scanning**.

Fictional Statement

"Europe does not grant young people the opportunities that every generation deserves. It focuses on current problems, forgetting that its future will be decided by today's twenty-somethings. They, meanwhile, are finding it harder and harder to get a job and, therefore, to enjoy a decent quality of life. At this moment, in December 2023, the unemployment rate among people under 25 is almost 15%, which means that, effectively, 2.86 million young people are now jobless."

The fragments highlighted in green contain information about facts and, as such, can be verified. The fragments highlighted in yellow are opinions and are therefore unverifiable, as one can agree with them or not, but it is impossible to evaluate their truthfulness.

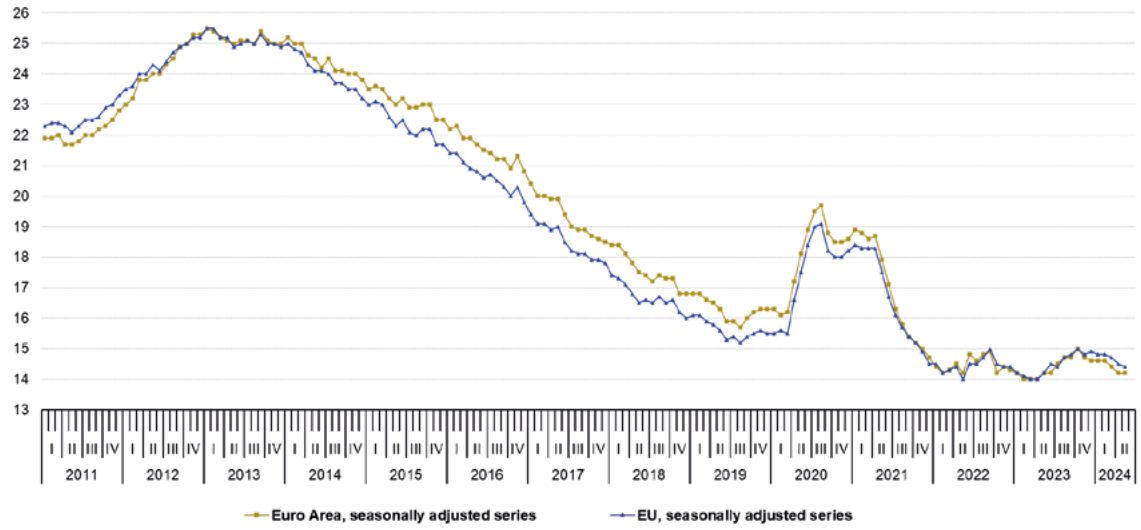
4. When a group is done with this task, they should move on to the next one. This time, they will have to go online and find t**he primary source of information that presents current data** and enables fact-checkers to verify the truthfulness (accuracy) of the content referred to by the politician.

Tip

This is the right moment to ask which public institutions, non-governmental organizations or research institutes gather and process data on the subject referred to in the analyzed statement. When dealing with statistical data, it is useful to visit the websites of statistical offices, such as the European Statistical Office (Eurostat) or the central statistical office in your country. Search engines and citation databases like Google Scholar or Scopus are some of the best tools for finding articles and scientific research reports.

The information from the fictional statement above can be verified based on the data gathered and published by Eurostat.[5]

Youth unemployment rates, EU and EA, seasonally adjusted, January 2011 - May 2024



Source: Eurostat (online data code: une_rt_m)

eurostat

5. The groups' third task will be to evaluate the truthfulness of the analyzed statement. They will have to decide whether any given verifiable part of the statement is true, false, or manipulated. They will do so, following the **methodology** used by the Demagog Association (see Appendix 2) or any other reliable fact-checking organization. Find the list of institutions and organizations associated with the International Fact-Checking Network at: https://ifcncodeofprinciples.poynter.org/signatories.

5. *"Unemployment statistics."* Eurostat, May 2024, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Unemployment_statistics#Youth_unemployment. Accessed 20 June 2024.

Solution
According to the data gathered by Eurostat, the information about the unemployment rate among people under 25 being almost 15% (14.7% to be exact) is true.

What, however, is not true, is the statements that young Europeans are having a hard time finding jobs. In the context of the last decade (2013–2023), one can almost say that the reverse is true. Eurostat data shows that in 2021, the rate of unemployment for this age group exceeded 25%, and it has been falling ever since. The period of the coronavirus pandemic was the only exception to this trend, as the unemployment rate grew from around 15.5% to around 19% during that time.

REFLECTION (8 minutes)

Discuss the tasks with the students. The following questions should help:

- Which of the three stages did you find the most difficult? Why do you think that is?
- How did working under time pressure impact your performance?
  Did it motivate you or do you feel you have made more errors because of it?
- Which fragments of the statement are unverifiable, as they do not reference any numerical data or past events, but could still influence the audience?
  What are those fragments, if they are not facts?
- What do you think about the role fact-checkers play in society? In what ways can they influence the quality of the public debate?
- Can regular citizens and Internet users do what fact-checkers do? Why?

THEORY (5 minutes)

Using the Overview for Educators section, briefly summarize what professional fact-checking entails. It is important to make the following clear to the students:

- Thanks to fact-checking, we can tell which fragments of the statements made by public figures are true. This forces politicians to choose their words more carefully.
- At the same time, fact-checking does not cover unverifiable statements or fragments of statements, like opinions or promises, which, through manipulation, influence people and public opinion.
- Each one of us can carry out their own fact-checking investigation. It is crucial that we develop our skills in this field. Verification of content takes time, but it is worth it.

PRACTICE (12 minutes)

Tips

In this exercise, you will use actual statements made by public figures. If you fear that your students could check the politicians' affiliations and start arguing about ideology instead of focusing on the problem of fake news and manipulation, you may choose to omit the names of the politicians. If you want to make identifying them even more difficult, you can paraphrase the statements. Remember, though, not to change their meaning in the process. These are merely examples; feel free to suggest your own topics or use statements by public figures from your country.

If you would prefer the statements to touch upon subjects you have covered with the group, write your own! Remember that they need to contain information that your students will be able to verify using publicly available data.

1. Explain to the students that they will now be able to test their fact-checking skills. Ask them to choose one of the following topics – the one they find the most engaging or interesting:

   - food waste in European Union countries;
   - sea level rise in the context of climate change;
   - new jobs created in the USA under Biden's administration.

   These are just examples. You can suggest your own topics.

2. Present an actual statement made by a public figure on the topic chosen by the students. As per the above tip, you can make the statements anonymous. Your students' task will be to find the **primary source of information that contains current data** and enables them to verify the statement. Find example sources in the table below:

STATEMENT	PRIMARY SOURCE OF INFORMATION (with current data)	GRADE
"Did you know that in the EU, 58 million tonnes of food go to waste annually?" (The Left, a political group in the European Parliament, Instagram, March 13, 2024)	https://ec.europa.eu/eurostat/web/products--eurostat-news/w/ddn-20240927-2	**Partially true** Justification: https://eufactcheck.eu/factcheck/mostly-true-58-million-tonnes-of-food-annually-go-to-waste-in-the-eu/ (Analysis based on outdated data)

STATEMENT	PRIMARY SOURCE OF INFORMATION (with current data)	GRADE
"They say the ocean will rise one-eighth of an inch over the next 200 to 300 years." (Donald Trump, November 15, 2022)	https://sealevel.globalchange.gov/resources/2022-sea-level-rise-technical-report/#slr	**False** Justification: https://www.politifact.com/factchecks/2022/nov/17/donald-trump/trump-vastly--understates-how-much--experts-expect-s/
"We created 15 million new jobs in three years, more than any administration has in history." (Joe Biden at campaign event in Las Vegas, July 16, 2024)	https://data.bls.gov/timeseries/CES0000000001	**True** Justification: https://www.factcheck.org/2024/04/familiar-claims-in-a-familiar-presidential-race/ (section *Misleading Jobs Comparison*)

Appendix 1

Worksheet

Assume the roles of fact-checkers and, following the instructions, verify the statement below:

> "Europe does not grant young people the opportunities that every generation deserves. It focuses on current problems, forgetting that its future will be decided by today's twenty-somethings. They, meanwhile, are finding it harder and harder to get a job and, therefore, to enjoy a decent quality of life. At this moment, in December 2023, the unemployment rate among people under 25 is almost 15%, which means that, effectively, 2.86 million young people are now jobless."

Instructions

As part of the first stage of the task, you will identify and underline/highlight/write down those elements of the statement that can be verified (numerical data, statistics, and past events). Fact-checkers call this stage **media scanning**.

As part of the second stage, you will have to find the primary source of information that contains current data and that will allow you to evaluate whether the contents of the above statement are truthful. Save the link to the source and any relevant information from it, e.g., copy and paste them into a file.

Ask yourselves which public institutions, non-governmental organizations, international organizations or research institutes gather and process data relevant to the topic of the statement you are analyzing. When dealing with statistical data, it is useful to visit the websites of statistical offices, e.g., the European Statistical Office (Eurostat). Search engines and citation databases like Google Scholar or Scopus can facilitate finding articles and scientific research reports.

As part of the third stage, you will evaluate the information included in the statement. You will need to decide whether they are true, false, or manipulated. Follow the guidelines laid out as part of the Demagog Association's fact-checking methodology, or the methodology employed by any other reliable fact-checking organization.

METHODOLOGY*



TRUE

A statement is considered to be true if:

- there are two reliable and independent sources (or one, if it is the only relevant source in the context of the statement) confirming the information in the statement;
- it contains the most current data available at the time of the statement;
- the data is used in its original context.



PARTIALLY TRUE

A statement is considered to be partially true if:

- it combines true and false information, but the presence of false information does not distort or misrepresent the main claim of the statement;
- the actual data further supports the author's thesis.



FALSE

A statement is considered to be false if:

- it does not align with any publicly available information based on a representative and reliable source;
- the author presents outdated information that is contradicted by more recent data;
- it contains partially correct data but omits key information, thus falsely representing the facts.



MANIPULATION

A statement is considered to be manipulative if it contains misleading information or distorts facts, particularly through:

- omitting important context;
- using accurate data to draw false conclusions;
- selectively using data that supports the thesis (cherry-picking);
- using non-comparable data to create a semblance of similarity or contrast;
- using non-substantive methods of argumentation.



UNVERIFIABLE

A statement is considered to be unverifiable if:

- it is impossible to verify through any available sources;
- it refers to outdated sources that cannot be used to make judgments about the present;
- it concerns estimates that come with a high degree of uncertainty;
- it contains vague or overly general statements.

Grading system based on the methodology used by the Demagog Association website https://demagog.org.pl/en/methodology/. Accessed 23 November 2024.

Appendix 3

Statements made by public figures

“Did you know that in the EU, 58 million tonnes of food go to waste annually?”

The Left, a political group in the European Parliament, Instagram, March 13, 2024

“They say the ocean will rise one-eighth of an inch over the next 200 to 300 years.”

Donald Trump, November 15, 2022

“We created 15 million new jobs in three years, more than any administration has in history.”

Joe Biden at campaign event in Las Vegas, July 16, 2024

“Did you know that in the EU, 58 million tonnes of food go to waste annually?”

The Left, a political group in the European Parliament, Instagram, March 13, 2024

“They say the ocean will rise one-eighth of an inch over the next 200 to 300 years.”

Donald Trump, November 15, 2022

“We created 15 million new jobs in three years, more than any administration has in history.”

Joe Biden at campaign event in Las Vegas, July 16, 2024

Getting Internet-Smart!

5. Psychological Pitfalls and the Process of Radicalization

OVERVIEW FOR EDUCATORS

Radicalization is a complex process whereby a person or a group of people adopts increasingly radical (extreme) views and beliefs and, to an increasing extent, accepts undemocratic and violent means and solutions. The mechanism looks the same whether we are looking at left-wing, right-wing, or religious extremism (rooted in the political interpretation of religion). The path a radicalized individual follows may depend on that person's background and their radicalization may take many different forms. Ultimately, however, it may lead to acts of violence and even terrorism.

Radicalization progresses in stages, but we need to assume that there is no point of no return and remember to react. Especially given that the process of deradicalization is difficult and challenging, which makes taking preventive measures paramount.

There are many roads to radicalization: polarization, social exclusion, adopting conspiracy theories as a worldview, stigmatizing otherness, accepting hate speech, and tolerating hate crimes. In recent years, one of the most common types observed by sociologists has been online radicalization. An uncritical attitude toward online content may reinforce a person's so-called cognitive biases, which play an important role in radicalizing individuals and groups, as well as in popularizing extremist narratives.

One's susceptibility to radicalization has nothing to do with one's IQ but a lot to do with the natural psychological mechanisms that interfere with critical and rational judgments and that can trigger or accelerate the process of radicalization in people.

- **automatic thinking** – quick, effortless information processing without active thought processes involved, based on intuition, association, and automatic processes such as stereotyping;
- **picture superiority effect** – the phenomenon in which the human brain internalizes information conveyed through images (pictures or pictograms) much better than that delivered in writing.[1]

All cognitive processing falls under either automatic or controlled processes. The controlled opposite of automatic thinking is called **deliberative thinking** – it requires effort, commitment, and mindfulness, and is grounded in reflection and rational inference. **The more information we process through automatic thinking, the more psychological pitfalls await us.**
Building awareness of their existence and teaching the mechanisms behind automatic thinking are two key preventive measures that help protect young people from disinformation and radicalization.

1. There are more such distortions of reasoning. You can read about them in: Bouko, Catherine, et al. *Prevention of Youth Radicalisation Through Self-Awareness on Cognitive Biases: Scientific* report, Precobias, 2020. https://www.precobias.eu/wp-content/uploads/2020/08/PRECOBIAS-867186-D2.1-Executive-Report.pdf. Accessed 24 June 2024.

Attributes of automatic and deliberative thinking

AUTOMATIC THINKING	DELIBERATIVE THINKING
Does not require effort	Requires effort
Does not require concentration or attention	Requires concentration and attention
Fast	Slow (requires time)
Based on intuition, association, and automatic processes	Based on reasoning

According to a 2018 survey, 77% of adolescents have already encountered invocations to violent behavior on social media platforms. In November 2019, on the messaging platform Telegram alone, Europol took down around five thousand bots and accounts connected with the so-called Islamic State.[2] One must bear in mind, however, that many extremists do not openly advertise their activities and use aliases and cover-ups, so it is not always easy to spot them and react in time.

The exposure of adolescents to extremist symbols should be minimized. You must not, therefore, use them during the lesson, even as illustrations, unless your students bring them up themselves or if you are certain that they have encountered them recently. When discussing such issues, it is important to create and maintain an atmosphere of trust. Nobody should feel judged for their beliefs but, at the same time, you must not allow anybody to promote radical attitudes. **The key to protecting adolescents from radicalization lies in friendly relations within the class or group, in the feeling of belonging, mutual respect, willingness to engage in difficult conversations, and the ability to listen.**

GLOSSARY

automatic thinking — one of the two modes of cognitive processing; quick, effortless information processing without active thought processes involved, based on intuition, association, and automatic processes such as stereotyping.

cognitive bias — distortion of reasoning whereby information is not analyzed; makes one arrive at different conclusions than they would if they were to consider the context and other aspects of any message or content.

picture superiority effect — the phenomenon in which the human brain internalizes information conveyed through images (pictures or pictograms) much better than that delivered in writing.

radicalization — a complex process whereby a person or a group of people adopts increasingly radical (extreme) views and beliefs and, to an increasing extent, accepts undemocratic and violent means and solutions.

2. Bouko, Catherine, et al. Prevention of Youth Radicalisation Through Self-Awareness on Cognitive Biases, op. cit.

LESSON PLAN

Objectives

The students:

- understand the mechanisms behind cognitive biases and their consequences;
- know how automatic thinking and the picture superiority effect work;
- are developing critical thinking and analytical skills.

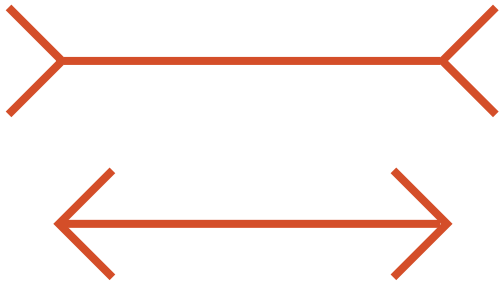
Materials

- printed-out copies of the image from the Appendix
- projector and screen

EXPERIENCE (10 minutes)

Inform the students that you are going to participate in several group activities now.

1. Show the class the picture below and ask which of the parallel straight lines is longer. This is a trick question, as they are both the same length. When we look at the image, we experience an optical illusion that makes us think the line on top is longer.



Count how many students said that the straight line on top was longer, then ask one of them to measure both lines to verify this assumption.

Tip

Your students may be familiar with this optical illusion, as it is quite well-known. Maybe the entire class will say that the lines are equal in length. Do not worry about it, but skip the measuring part. Confirm what your students are saying. But if even a single student questions the answer, do not skip any of the steps.

2. Tell the students that you are going to ask them several questions and ask them to respond as quickly as they can, without raising their hands:

- What color is a polar bear? (Answer: white.)
- What color is whipped cream? (Answer: white.)
- What color is snow? (Answer: white.)
- What do cows drink? (Answer: water, but some students are likely to say “milk.”)

3. Next, ask the students if they can remember any memes (or online ads) that stood out to them recently. Write what they say on the board.



Tip
Your students are likely to pay more attention to images than to text. While describing a meme or an ad, they will probably start with the image(s). We only tend to remember and be able to quote captions and advertising slogans if they are sufficiently catchy or funny.

REFLECTION (10 minutes)

Ask the class:

- What do you think about those activities? (Did you find them, e.g., interesting, funny, boring, engaging, quick, strange, pointless, etc.?)
- What did the activity with the straight lines teach you? (E.g., optical illusions, automatic jumping to conclusions.)
- Why do you think part of the class answered “milk” to the question about what cows drink?
- Did you notice that, when you were talking about the memes (or ads) you have recently seen, you started by describing images? Why do you think you did that? What grabs our attention first?
- Are there any captions or slogans that are easier to remember than images? What criteria do they need to meet for us to be able to remember them better? (E.g. they have to be catchy or funny.)

THEORY (10 minutes)

Listen to your students’ answers and then, on the board or flipchart, write **“automatic thinking.”** Explain that it is a process that was triggered in their minds by the first two activities.

You could ask the group:

- How much time did it take you to come up with your answers?
- On a scale of 1 to 5 (1 being the lowest level of concentration and 5 the highest), how strongly did you focus to give your answers?
- What do you think “automatic thinking” is?

Explain automatic thinking to the class or, if time permits, encourage your students to brainstorm ideas and try to arrive at the definition together.

Automatic thinking means quick, effortless information processing without active thought processes involved, based on intuition, association, and automatic processes such as stereotyping.

Tell the class that automatic thinking is a natural mechanism that protects our brains from overexertion. At the same time, however, this phenomenon is used by marketing and advertising specialists or political campaigners, as well as by extremists, whose goal is to incite prejudice and hate against certain groups and to discriminate against them.

Remark that a similar mechanism that reinforces our automatic thinking tendencies is the **picture superiority effect**, which the students experienced during the third activity.

The more information we process through automatic thinking, the more psychological pitfalls await us. This makes the mechanism particularly useful to those who seek to radicalize the youth, and the Internet is where it is easiest to encounter radicalizing messages and content.

Ask the class if they know what radicalization means. If they do not, explain the term, using the Overview for Educators section. Say that **radicalization** is a complex process whereby a person or group of people adopts increasingly radical (extreme) views and beliefs, and, to an increasing extent, accepts undemocratic and violent means and solutions.

At this point, it is worthwhile asking the students whether they believe that a person can become a terrorist after seeing one image or meme. This is a very important question that may provoke a heated discussion. It is possible that a student may ask it. If there is time for a discussion and your students do not ask the question, ask it yourself. If a student does, do not ignore it but be mindful of the time frame. If you want, you can make this activity part of the Practice stage of the lesson,

PRACTICE (10 minutes)

On the board or flipchart, draw or project a table in which you and your students will write the attributes of deliberative thinking. First, explain that deliberative thinking is the opposite of automatic thinking.

AUTOMATIC THINKING	DELIBERATIVE THINKING
Does not require effort	
Does not require concentration or attention	
Fast	
Based on intuition, association, and automatic processes	

Discuss:

- Do your students find deliberative thinking easy or hard? Why?
- How can your students exercise their deliberative thinking skills?

Write down the ideas and make a list. Ask every student to choose one item from it – one deliberative thinking exercise that they believe they could benefit from, and start practicing immediately in their daily lives, online and offline. Ask them to focus on their chosen exercise and do it for a week. Make sure that the list stays in the classroom where your students can see it. Maybe you will return to it in the future to see if the ideas have worked. Or, perhaps, seeing that their chosen method is yielding results, your students will try different ones, reinforcing their deliberative thinking processes while interacting with online messages and content.

ALTERNATIVELY

Ask the students if they tend to notice the mechanisms of automatic thinking and the picture superiority effect while using the Internet. Encourage them to share a few of their online experiences.

Emphasize that now, after this lesson, they will be able to spot these mechanisms in action and will be aware of their dangers, which will make them more resistant to disinformation and radicalization. Encourage them to practice deliberative thinking, even though it may not be very easy.



Getting Internet-Smart!

6. Algorithms in the Service of Marketing

OVERVIEW FOR EDUCATORS

As we use the Internet, we leave behind a digital footprint – we share information about ourselves even if we can't see it. Very often, we simply do not realize what information was gathered and by which online platforms. The truth is that most of the websites, social media platforms, and apps that we use collect our data.

Exceptions to this rule are few and far between. One of them is *Wikipedia*, one of the Internet's most popular websites, which does not display ads, does not gather any information about its users and is run by a non-profit organization.

After our data has been collected by a website or app, it is analyzed by algorithmic systems that are able to process vast amounts of information and make decisions based on the results of their analyses. Their most common objective is user profiling or, put simply, tailoring services to our individual needs.

Using algorithms, social media platforms are able to profile the content that appears in the users' personalized **feeds** (information streams). Because of this, users who follow the same or similar accounts will often see different content. For this reason, the main page of *TikTok*, the first screen a user sees after opening the app, is called the *For You Page*. It displays algorithmically curated content selected for each individual user based on their most recent interactions with the application. *X*, formerly known as *Twitter*, adopted this nomenclature as well, offering its users the *For You* and *Following* timelines.

Profiling can sometimes be useful. Thanks to this, search engines retain information about our past searches and are thus able to return more relevant results, while social media platforms suggest content we find more engaging or useful. More often than not, however, profiling is troublesome or outright harmful to the users, as the data collected is used by Internet companies to make more profit. For instance, **user profiles make it easier for algorithms to curate** (collect, organize, and suggest) **personalized content that grabs our attention and makes us spend more time on a given app**. This, in turn, makes for greater profits for the companies whose ads are displayed, at the same time breaking us out of our digital hygiene habits.

The Internet is not only a network of interconnected websites and services. It is also a **vast, invisible marketing network** full of its users' data. One of the most widespread uses of personal data is ad profiling, but the information about us available online can also be used by banks and insurance companies to calculate our credit (or insurance credit) scores.

The data collected by one application is often shared with – or sold to – hundreds of companies. **Cookies**, special files saved on our devices, enable websites to recognize us as unique users. We do not need to reveal our names – cookies still allow us to be tracked across apps and websites.

The ongoing development of continuously perfected artificial intelligence systems puts user data in a whole new light. These systems require larger and larger sets of data on which they are trained. Statistical tools are used to analyze our behavioral and conversational patterns, and artificial intelligence systems draw conclusions about us or generate profiled content. User data, which enabled the explosive growth of the Internet's biggest websites and social media platforms over the last decade, is now used to upgrade a new generation of AI services.

As individual users, we have little influence over how information about us is gathered and to what ends. T**he best we can do is follow the guidelines about digital hygiene, learn the ways in which our data is used online, and share it in as conscious a manner as possible.** Ultimately, though, a lot depends on the applicable laws and regulations. The European Union has been trying to influence Internet companies and make them respect the privacy of users. The GDPR regulation, introduced in 2018, requires obtaining consent for the use of personal data. In 2023, another law, the Digital Services Act (DSA), introduced new tools to control online platforms, particularly focusing on how they use algorithms to profile users.

Ad Blockers – Users Take Matters into Their Own Hands

Ad blockers are a rare example of a tool that gives users more control over how they use the Internet. In addition to the removal of ads, advocates of ad blockers cite benefits such as increased security, faster browser performance, and reduced network traffic. Critics argue that ads are essential for funding freely available services.

GLOSSARY

ad blocker — software that removes ads from the content displayed in web rowsers.

algorithm — a finite sequence of instructions that generates output data based on input data. On the Internet, algorithms are responsible for mechanisms such as user profiling and creating advanced recommendations used in sectors like marketing and e-commerce. Algorithms can be used to create customer profiles that reflect their preferences, habits, and online behaviors. Interestingly, even if some information about a user's preferences is missing, algorithms automatically calculate probable values to complete the profile. So-called curation and reommendation algorithms are responsible for the personalized content (including ads) displayed to unique users by social media platforms – they select and rank recommendations based on the users' click-behavior and various other factors.

cookies special files saved on our computers. Cookies enable websites to recognize unique users. Marketing websites use them to gather information about users across various applications and online spaces.

data information processed by a computer, e.g., numbers, facts, etc.

digital footprint the data we leave behind online, both intentionally and unintentionally, such as IP addresses (which reveals our location), device data (model, version, etc.), the websites we visit (search history), our behavior on them (how often we visit, where we spend the most time, and what we click on), the web browser we use and its version (also known as our *browser fingerprint*), our searches, purchases, the forms we fill out, information about the people whose profiles we follow, etc.

feed in social media, this is the main page of a website or the main screen of an app – the space in which new posts are displayed. Previously, websites presented all content in chronological order; now, they show a selection of posts screened by filtering algorithms.

profiling tailoring services to our individual needs.

LESSON PLAN

Objectives

The students:

- know what methods the designers of websites, social media platforms, and apps use to collect user data;
- realize what this data is used for;
- understand the role algorithms play in content curation on social media and in applications;
- are aware that they can customize the settings of the apps and online services they use;
- can critically read the terms and conditions of use of online services and know when not to accept them;
- know how to defend themselves from online ad profiling.

Materials

- phones with Internet access
- a computer with Internet access and a projector
- printed-out worksheets (Appendix)

Take Note!

The tasks included in this lesson plan have the class use their smartphones and analyze their social media accounts and app settings. If there are students in your class who do not have social media accounts, skip this lesson.

EXPERIENCE (15 minutes)

1. Ask the students to consider w**hat the social media platform they use most often thinks about them**. How does it perceive them? What does it know about them? Encourage them to write their reflections down as keywords on their worksheets.

2. Next, ask the students to access their chosen social media platform, **carefully analyze their feed**, and write down on their worksheet **what kind of content is displayed to them:** what posts (what about and who by?) and what ads?

Take note!
Explain to the students that the worksheets are for their personal use only and that they do not have to show them to anyone if they do not want to.

3. Encourage the students to consider the content appearing in their feeds and to write down what their personal **profiles** look like from the algorithm's perspective. **What do social media algorithms know about them**, including their interests and preferences? Who do they see them as?

4. In the end, ask the class whether what they have just written is the same as their guesses from point 1.



Tip
If the students in your class work well together, like and trust each other, you can suggest that they share the results of their individual work in pairs or groups of three. Encourage them to discuss whether the same or different content is displayed to different individuals on social media platforms.

REFLECTION (10 minutes)

Discuss with the class the task they have just completed. The following questions should help:

- How well do social media algorithms know you? What information about you do they have?
- What are your thoughts on the user profiles you created after analyzing your social media feeds? Do you see yourselves similarly to the way the algorithms perceive you?
- How do you feel about the fact that the algorithms know so much about you that they appear to be reading your mind?
- How come the algorithms know you so well? How do app and website creators gather information about us?
- Do we always share our data intentionally? Justify your opinion.

THEORY (15 minutes)

Using the Overview for Educators section, remind the students of the definition of algorithms and briefly discuss the role they play in content profiling and curation on social media and in other web spaces.

Explain that **most social media platforms and applications collect lots of different data on their users**, including their search history, visited websites, browsed content, online interactions, demographics, contact data, purchase history, interests, and even their location, calendar, health, religion, and sexual preferences. Your students may find it interesting that **free apps collect seven times more data than paid ones**.[1] Some platforms use the gathered information themselves, but many sell it to other companies, generating a lucrative revenue stream. Many platforms and websites also have access to data on our behavior in other apps.

Emphasize that this information is often used to benefit online companies. Explain that the Internet is a vast, invisible **marketing network** where user data is constantly collected and traded. Your students may be interested to learn how much money social media platforms make by selling advertising space. You can find the data and relevant charts here: https://www.statista.com/outlook/dmo/digital-advertising/social-media-advertising/worldwide#ad-spending.

Inform the students that we are past the point when it is possible to avoid having one's data collected by apps and platforms. **We can, however, share our data in a more conscious manner and protect ourselves from ad profiling.**

- Explain to the class what **cookies** are and encourage the students to read cookie notices carefully when they pop up.
- Tell them that it is even more important that they **read the terms of service** of every new app before they consent to them. Encourage the students to make sure what data they are allowing apps to access. It is worthwhile to consider whether a flashlight app really needs access to our contacts and location. Sometimes, app developers and publishers will try to get us to agree to share or receive more information, mostly for marketing and advertising purposes, so they can display more targeted ads. It is important to stop and think whether we want to agree to such conditions. Explain that if we suspect our data may be unlawfully used by an app, we can contact its administrators.
- Introduce the class to the concept of **ad blockers** and discuss their functionalities.



Tip

You can use a computer connected to the Internet to show the student how to block unwanted ads. You will find plenty of instructions and tutorial videos online.

1. Sharma, Mayank. "That Popular Android App Could be Sharing Your Data With Others." *Lifewire, 7* September 2022, https://www.lifewire.com/that-popular-android-app-could-be-sharing-your-data-with-others-6543726. Accessed 24 June 2024.

PRACTICE (5 minutes)

Explain to the students that as part of the final task, they will get an opportunity to consciously manage their data.

OPTION 1

Ask each student to open any app they have installed on their phone. It can, but does not have to, be a social media app. Encourage the students to individually check their chosen apps' permissions. To do this, one needs to go to the settings and select *permissions, privacy, ads – data management*, or any such tab. Everyone can now change the settings however they like.

OPTION 2

Ask the students to go to any website they want, e.g., an online store. Encourage them to carefully read the cookie notice that will pop up, and then to either accept it or go to the settings and choose the options they prefer.

EXTENSION TASK

If time permits and your class is interested in continuing the discussion, ask them:
Now that you know how social media algorithms work, if you had the choice, would you continue to use social media platforms? Do you feel you even have a choice in this matter (i.e., to use them or not)?



Tip
You might be interested in the results of a study conducted among students by a group of economists from the University of Chicago, the University of California, Berkeley, Bocconi University in Milan, and the University of Cologne. The findings show that many young people would be willing to pay to deactivate their social media accounts, but they would only do so if their friends did the same.

Appendix 1

1. What do you think the social media platform you use the most often thinks about you? What does it know about you? Write your thoughts down as keywords

2. Analyze your feed. What content is displayed? What ads?

topics of posts:

types of videos:

products/services advertised:

3. What does your **profile** look like to an algorithm? What do social media algorithms know about your interests and preferences? Who do they see you as?

age

gender

favorite products

others



interests

favorite pastimes

favorite music

Getting Internet-Smart!

7. Artificial Intelligence, Meaning What, Exactly?

OVERVIEW FOR EDUCATORS

Although artificial intelligence (**AI**) has been a subject of public debate for several years now, it is seldom specified what it really is. Contrary to popular belief, AIs are not sentient, conscious machines and actual thinking devices do not exist. The greatest misunderstanding about the nature of AI possibly arises from the fact we call it an intelligence. This word, as it turns out, can be misleading.

An artificial intelligence is a highly advanced piece of software able to generate new content, produce recommendations, and make decisions based on the analysis of the available data. Artificial intelligence (without an article) is also the name of a field of research in computer science and a branch of mathematics, both devoted to the creation and research of such software.

Modern artificial intelligence systems are able to, among other things:

- perceive the world around them with sensors;
- interact with people;
- learn from available data;
- infer.

This does not mean, however, that these programs are "intelligent" or "sentient." AI specialists claim that, one day, this state of affairs will change. The biggest tech companies working on AI are developing what they call *artificial general intelligence*, or AGI, which is supposed to be able to do anything that humans can. However, such a system does not yet exist and it is not certain if they will ever be created.

Thanks to the rapid pace of research and development in the field, the capabilities and applications of AI are constantly changing. At present, AI systems work best as data processing tools capable of analyzing large datasets – e.g., in satellite imagery processing. They also manage repetitive tasks quite well, such as summarizing longer texts. They cannot replace humans in the field of creative work, however. They cannot compose a song or write a book by themselves. Although, from time to time, the media reports on such generative efforts, behind every "AI-created" artwork, there is a human being managing the system.

AI is not a new idea. The first theory of artificial intelligence as a system able to autonomously carry out logical operations was proposed in 1950 by the great British mathematician Alan Turing of the Enigma cipher device and Turing test fame.

A term that better describes what AI systems actually do is **machine learning**. It refers to statistical algorithms that can learn from available data and to generalize to unseen data, i.e., use data to draw generalized conclusions. We say that such systems "learn" because,

unlike traditional algorithms, they are not programmed – no human being tells them what conclusions to draw based on the available information.

Another important term is **generative AI**. This type of artificial intelligence creates (or generates, hence the name) new content based on the previous analysis of large amounts of relevant data. Generative AIs can write, but also create images, sounds, and videos. Work is currently underway on systems that can do all these things at once. Thanks to the machine learning methods used in the creation of generative AIs, they are able to, for example, analyze extensive collections of photographs and generate new images unlike anything in their training resource databases. What this means is that AI development relies on access to large datasets as much as on access to quality data.

Nowadays, generative AI systems are used to create **chatbots**, i.e., systems able to communicate with the user, often via text and much like messaging apps. Many people assume that those systems are really able to converse with human beings – that they understand what is said to them and respond to it. In reality, though, AIs are **statistical programs that are able to predict, drawing on very large datasets, what word or phrase will be most likely to appear next in a given context**. Chatbots "talk" to us because they were trained (as the process is called) on countless transcripts of actual human conversations.

One must also not forget that the labor of many people is required to maintain and develop artificial intelligence systems. For instance, generative AIs do not learn by analyzing vast amounts of content alone. Even the word "learn" may be misleading here. They are, however, trained. Often actively. **In order for an AI chatbot to be able to hold everyday conversations, thousands of people need to work on it, fine-tuning its systems**.

It is worth mentioning that in numerous fields, artificial intelligence is still far behind us and is unable to replicate human behaviors. **Human intelligence has some unique traits that remain beyond AI's reach. First and foremost, humans are capable of empathy, creativity, and intuition, which enables them to recognize and understand emotions in others and to react to them – all this in ways that are very hard for AI to mimic**. Moreover, we are capable of abstract thinking and lateral problem-solving, both of which remain a challenge for computer algorithms, whose ways of "thinking" are far less flexible than ours.

There are, however, certain fields in which AI has already started to outdo humans. Artificial intelligence performs better than us when it is given tasks that require great precision, high data processing speed, or the analysis of very large sets of data. For instance, in the field of medicine, AI can help diagnose diseases on the basis of medical imaging much faster and more precisely than humans, which results in increased treatment efficacy. Similarly, AI systems and solutions used by the manufacturing industry can optimize production and predict equipment breakdowns, thereby increasing efficiency and reducing the costs.

GLOSSARY

AI (*artificial intelligence*) – systems that are able to generate new content, produce recommendations, and make decisions based on the analysis of available data.

chatbot	an application or computer program designed in a way that enables it to converse with people. Chatbots employ artificial intelligence to recognize and process natural language.
generative AI	artificial intelligence models designed to create new content such as text, sound, image, or video.
machine learning	a field of study in artificial intelligence concerned with the development of systems able to learn from available data, recognize patterns, and make decisions with minimal human input.

LESSON PLAN

Objectives

The students:

- understand basic AI-related terminology;
- are able to name the factors involved in AI-driven and human decision-making;
- know what AI tools can be used for.

Materials

- printed-out worksheets (Appendix)
- a computer with Internet access
- a ChatGPT account
- a projector

EXPERIENCE (15 minutes)

1. Start the lesson by dividing the students into pairs or groups of three and distributing the activity worksheets. Explain that the first task will involve making a difficult decision in a hypothetical situation. Choose the variant you think will be most suitable for your students:

OPTION 1

You are a guard at a world-renowned art gallery. In the wing you're responsible for, there are two objects considered the most valuable in the entire collection. The first is a painting by a famous 19th-century artist, valued by art experts at nearly 200 million euros. This is your favorite painter, so you were eager to work in this part of the gallery. You enjoy seeing crowds of people admire the piece every day. In your free time, you run a fan club for the artist on Instagram and often wear a t-shirt with a reproduction of the painting.

The second object is a priceless, unique figurine of a hippopotamus from a pharaoh's tomb, over three thousand years old. Besides its artistic value, it's an important piece of ancient cultural heritage. The gallery worked very hard to acquire this figurine for its collection. Only three museums in the world have objects like this.
One night, a fire breaks out in the gallery. When you hear the alarm, the fire is already reaching your wing and spreading so quickly that you have no time to waste. You don't know when the fire department will arrive. You realize you need to escape as quickly as possible. You can save only one of the two most valuable objects, which are located in different, distant rooms.
Which one will you save from the flames? Make your decision.

OPTION 2

You are a forest ranger responsible for protecting a large nature reserve and a passionate bird lover. In your free time, you conduct detailed observations and document the life of birds to better understand their needs and protect them more effectively.
One night, fires break out in two different, distant parts of the forest. You only have one firefighting team at your disposal, which you can send to extinguish the flames. You must decide which part of the reserve to save.
In the first burning part of the forest, there are trees of a rare, endemic* species that is crucial for the local ecosystem. According to the International Union for Conservation of Nature (IUCN), this species is critically endangered. Because of this, no economic or recreational activities are allowed in this part of the forest that could further threaten the species' survival. This area doesn't bring any income to the region; instead, it generates costs related to its protection and management.
In the second burning part, there is a centuries-old oak tree – the oldest tree in the country and a symbol of the reserve. Your grandfather, a forester, took care of its safety for years. Birds, currently in their nesting season, nest in the oak's branches. The tree attracts a lot of tourists, contributing to the enrichment of the residents of nearby towns. As much as 70% of the region's income comes from tourism.
You have to decide which part of the reserve to send the firefighters to. What will you do?

* Endemic – found only on our continent.

Ask the students to think about how they would act in the chosen situation and to write their answers and justifications (explanations) in the applicable spaces in their worksheets.

2. When the students are done with the task, if phone use is allowed during your lessons, ask them to log into their ChatGPT accounts or turn on any other chatbots and ask the AI to make a decision in the same hypothetical situation. For this exercise to work, your students should type the entire dilemma into the chatbot's text input field.

Take Note!
Your students may not have ChatGPT accounts. Remember to create your own before the lesson. This way, you will be able to log in, ask the chatbot to decide and display its answer for the whole class to see..



Tip
The chatbot may not give you a definitive answer, but merely return a list of suggestions. In such cases, adding a prompt along the lines of "give an unambiguous answer" or "make the decision" usually helps with the problem.

3. Encourage the students to save the chatbot's answer in a file or write it down, and to discuss it for a couple of minutes in groups or pairs. How did the AI justify its decision?

4. End the task by asking the class to reflect upon the differences between their decisions and the chatbot's, and to write those differences down.

REFLECTION (10 minutes)

1. Discuss the exercise with the class. Ask the students what decisions they made as pairs or groups and what factors influenced their decision-making process. Be prepared for some very different answers. Your students may opt for preserving cultural or natural heritage, but they may also base their decisions on their own experiences, ethical standards, preferences, and emotions.

2. Next, go over the AI's answer again, but this time together, and try to establish the basis of its proposed solution by recreating its decision-making process (e.g., it analyzed the data, considered the outcomes, weighing their pros and cons, etc.). Still working together with the class, focus on the differences between the AI's solution and the decisions made by your students, or on their respective justifications. Where do those differences stem from?

3. Together with the class, try to establish the differences between an AI and a human being. Write the conclusions on the board.

Example Conclusions
Artificial intelligence is unable to feel or experience emotions. All its actions are driven purely by pre-programmed instructions and the data it was trained on. It may take manmade and human-centric criteria, like the good of society, into consideration, but it lacks autonomy, values, beliefs, and preferences. Its role is to aid humans by analyzing information and providing new perspectives, which may prove helpful in solving ethical dilemmas and making informed decisions.

4. End the activity by asking the students what artificial intelligence is. What comes to mind when they hear the term?

THEORY (10 minutes)

Using the Overview for Educators section and following up on your previous discussion with the class, present the definition of artificial intelligence and introduce the concepts of machine learning and generative AI. Explain the ways in which human intelligence surpasses artificial intelligence, but also mention the fields in which AI performs better than us.

PRACTICE (10 minutes)

Write **“Benefits of AI”** on the board or flipchart. You can emphasize that it is only up to us, humans, how to utilize AI and to what ends.

Encourage volunteers to walk up to the board and write as keywords any benefits of using AI that come to their minds and that they might enjoy at present or in the future.

This exercise can result in an interesting mind map. Read the keywords from the board aloud, take a photo of the mind map, and send it to the students as teaching materials using your online gradebook or the learning platform your school utilizes.

Appendix 1. Worksheet – option 1

THE DILEMMA

You are a guard at a world-renowned art gallery. In the wing you're responsible for, there are two objects considered the most valuable in the entire collection. The first is a painting by a famous 19th-century artist, valued by art experts at nearly 200 million euros. This is your favorite painter, so you were eager to work in this part of the gallery. You enjoy seeing crowds of people admire the piece every day. In your free time, you run a fan club for the artist on Instagram and often wear a t-shirt with a reproduction of the painting.

The second object is a priceless, unique figurine of a hippopotamus from a pharaoh's tomb, over three thousand years old. Besides its artistic value, it's an important piece of ancient cultural heritage. The gallery worked very hard to acquire this figurine for its collection. Only three museums in the world have objects like this.

One night, a fire breaks out in the gallery. When you hear the alarm, the fire is already reaching your wing and spreading so quickly that you have no time to waste. You don't know when the fire department will arrive. You realize you need to escape as quickly as possible. You can save only one of the two most valuable objects, which are located in different, distant rooms.

Which one will you save from the flames? Make your decision.

Write your answer here.

Here, write what influenced your decision.

What solution did ChatGPT suggest? Write its decision here

Here, write what influenced the AI's decision.

What are the differences between the AI's decision and yours?

Appendix 1. Worksheet – option 1

THE DILEMMA

You are a forest ranger responsible for protecting a large nature reserve and a passionate bird lover. In your free time, you conduct detailed observations and document the life of birds to better understand their needs and protect them more effectively.

One night, fires break out in two different, distant parts of the forest. You only have one firefighting team at your disposal, which you can send to extinguish the flames.

You must decide which part of the reserve to save.

In the first burning part of the forest, there are trees of a rare, endemic* species that is crucial for the local ecosystem. According to the International Union for Conservation of Nature (IUCN), this species is critically endangered. Because of this, no economic or recreational activities are allowed in this part of the forest that could further threaten the species' survival. This area doesn't bring any income to the region; instead, it generates costs related to its protection and management.
In the second burning part, there is a centuries-old oak tree – the oldest tree in the country and a symbol of the reserve. Your grandfather, a forester, took care of its safety for years. Birds, currently in their nesting season, nest in the oak's branches. The tree attracts a lot of tourists, contributing to the enrichment of the residents of nearby towns. As much as 70% of the region's income comes from tourism.
You have to decide which part of the reserve to send the firefighters to. What will you do?

* Endemic – found only on our continent.

Write your answer here.

Here, write what influenced your decision.

What solution did ChatGPT suggest? Write its decision here

Here, write what influenced the AI's decision.

What are the differences between the AI's decision and yours?

8. Dangers and Opportunities in the Era of AI

OVERVIEW FOR EDUCATORS

People have been fascinated by artificial intelligence for decades now and it had been a topic of discussion long before it actually came to be. For evidence, look no further than pop culture – the theme of AI has long been present in movies, video games, and comic books, but also in literature. For instance, Polish science fiction writer Stanisław Lem wrote about sentient machines as early as the 1960s.

Such depictions are important as they allow us to better understand the role technology plays in the world – to take a closer look at potential threats before they become actual ones. Science fiction does not predict the future, of course, but it does show us what it could look like. And, sometimes, fantastic technologies leave the realm of fiction – smartphones, which most of us own nowadays, are fairly similar to the communication devices invented in the 1960s by the creators of the American TV show *Star Trek*.

Depictions of AI in popular culture can also be dangerous, however. They make it easier to believe that high-tech solutions like those portrayed in media either already are or soon will be a real thing – thanks to the next technological breakthrough. A good example would be the debate around the possibility of creating an *artificial general intelligence* (AGI), sometimes called a *superintelligence*. This technology is understood as an artificial intelligence that matches, and then quickly surpasses, human cognitive capabilities. AI developers and machine learning specialists are involved in a heated debate on whether such an AI can be created and how soon. In their discussions, they often refer to the visions of the future presented in pop culture – including the pessimistic ones, such as those in which intelligent robots bring about the end of humankind.

The Rapid Development of AI

One should bear in mind that artificial intelligence is a relatively new technology that is being developed and perfected at a very rapid pace. Two of the main reasons for this are, on the one hand, the fact that AI companies attract large-scale investments and, on the other, the rapid pace of research and development efforts in this sector, made possible by the exchange of knowledge between scientists and other researchers.

Although these technologies have been researched for decades, we have only been encountering AI in our daily lives for several years now. A major breakthrough came when the first widely available chatbots were launched, the most famous being ChatGPT created by the OpenAI company toward the end of 2022.

The rapid development of artificial intelligence and its introduction into various areas of life has had a wide range of consequences.

- The implemented technologies are not always fully developed or tested and thus we are not fully aware of the potential consequences of their use.
- It is not clear what dangers these technologies pose.

- Because AI solutions are being implemented as quickly as they are being researched, there is often no time for a public discussion on AI use.

The Dangers of AI

Users of AI solutions should be aware of their potential threats:

- **AI can "hallucinate".** Its systems do not understand the concept of facts, which makes them much better suited to telling stories than presenting knowledge. Because of that, chatbots often provide users with false or misleading information – such responses have been named *AI hallucinations*.
- **AI can disinform.** AI is not the sole reason behind the spread of disinformation, of course, but it makes creating and disseminating intentionally misleading materials much easier. It has, for instance, enabled the automated creation of malicious content, such as social media posts used to spread disinformation. AI is also used to create new kinds of false information, like deepfakes, fake videos of well-known people saying things they never said or would never say.
- **AI can cause and perpetuate inequality.** The *digital divide* is a kind of inequality rooted in unequal access to digital technology, including computers, fast Internet connections, or paid websites. Nowadays, its definition can also be expanded to AI solutions. Moreover, because the development of AI technologies is currently overseen by a handful of the largest IT companies in the world, true democratic control over AI may never happen.
- **AI may be involved with economic exploitation.** Although artificial intelligences are systems that operate without human participation or input, they are created and maintained by numerous people. Not all of these people are programmers or machine learning specialists, however. Many have quite tedious jobs, like data organization or the evaluation of test prompts and responses. As it turns out, those people, many of whom come from developing countries, are paid very little by the companies that profit greatly from these new technologies.
- **AI may cause people to lose jobs.** One of the consequences of labor automation will be a decrease in job opportunities for human workers. We cannot predict the scale of this potential upheaval, but it is highly likely that AI will significantly change the job market. An example that we can already observe is the situation artists have found themselves in, – since generative AI can imitate any known artist's personal style, the demand for manmade art is gradually decreasing.

Opportunities and New Possibilities Created by AI

At the same time, AI provides us with tremendous new opportunities to improve and reform many areas of life, including labor and science.

- **AI can automate various routine tasks**, enabling human workers to concentrate on more creative and strategic activities. AI systems may prove useful as administrative aids, analyzing and classifying documents, answering simple questions from customers, and managing meeting schedules.
- **AI can analyze large datasets** that would otherwise be difficult or even impossible to process. With its help, researchers are creating new nautical charts and pinpointing areas that are being overfished. Another example could be analyzing ancient carbonized papyrus scrolls discovered in the ruins of Herculaneum – image recognition methods using artificial intelligence have enabled researchers to reveal and decipher writing that is illegible to the human eye due to the degree of carbonization of the scrolls.

- **AI supports decision-making processes**, especially if they require analyzing large sets of data. Artificial intelligence systems have been employed, for instance, in financial fraud detection.
- **AI helps create innovative technologies** and can significantly develop various branches of industry and services. It will help in creating advanced security measures for IT systems (e.g., data protection or bank account security) and allow for the rapid diagnosis of many **elusive diseases.**
- **AI supports education**. Using artificial intelligence, work is being done to create personalized environments for learning or working that adapt to the individual needs of each person. AI systems can analyze preferences, knowledge levels, and learning speeds, leading to a more effective and satisfying learning process.
- **AI provides new methods of accessing information** and online resources. The advantage of these techniques is personalization and new ways of summarizing information.
- **AI can be used to develop educational materials** and even help create new textbooks.
- **AI can be utilized to develop and automate tests**, and subsequently to grade them, not only evaluating the students' results but also the teachers' performance.
- **Chatbots can be used as "artificial teachers"** and replace humans as educators.
- Generative AI can be used to do homework assignments – it can write essays but also, for example, code for computer science classes.
- **AI can aid students and educators in personalized learning efforts**, as it is able to create varied and personalized content quickly and with little human input.

AI and Education – Dangers or Opportunities?

The uses of AI in education prove that, regardless of the field, this technology can be applied consciously and prudently, but also carelessly, which could lead to negative consequences for the users. For instance:

- Students may use AI to generate text in order to learn what mistakes the system makes and how to spot them. This is an opportunity to hone their text-editing skills. However, AI can also be used to generate written homework assignments – not only is that cheating, but the students will not develop any writing skills this way.
- Teachers can save time and come up with more original lesson ideas if they use artificial intelligence to create educational materials. On the other hand, this can make their lessons formulaic and derivative, especially if they do not revise the generated materials.
- Automatic tests can help students by adjusting the level to their abilities. They are sometimes fairer than subjective human grading. However, they can also be used to collect information about young people that could be misused later, such as for profiling them based on their performance in later stages of education. Additionally, automatic testing means that the teacher cannot decide on the final result – for example, when a student is going through a difficult personal situation and some degree of leniency should be expected.
- Learning with a chatbot may open up possibilities for the students to learn new things that are not taught at their schools. However, it also means a lack of interaction with the teachers, which is often essential for effective learning.

GLOSSARY

AI hallucinations — a phenomenon in which artificial intelligence generates data or content that has no counterpart in reality or is inconsistent with actual information. This can occur in generative systems, such as text or image generators, which produce content or images that seem authentic but are, in fact, the result of an algorithm with no connection to real events or objects.

deepfake — a technique that uses artificial intelligence to manipulate video or audio content in such a way as to create recordings that appear realistic but are intended to mislead.

digital exclusion — a term referring to inequalities in access to or skills in using digital technologies, leading to social, economic, or educational inequality or discrimination. Differences in the use of AI can cause such exclusion.

LESSON PLAN

Objectives

The students:

- are familiar with selected uses of AI;
- understand the opportunities and dangers that AI may bring, including those related to education.

Materials

- printed-out fragment of a short story by Stanisław Lem (Appendix)
- sticky notes
- board or flipchart
- computer or a different device with Internet access, projector (optional)

EXPERIENCE (ca. 15 minutes)

1. Start by asking the students to read a fragment of *The Inquest*, a short story by Stanisław Lem (see Appendix). Tell them that it is crucial to consider the following four questions as they read:

   - What are the differences between a human being and artificial intelligence as depicted by the author?
   - What are the possible uses of artificial intelligence?

- In what ways can artificial intelligence analyze the world around it?
- How different is the way AI perceives reality from the way humans do?

2. When the class is done reading the text, divide it into four teams – one for each of the questions. Then, have the teams exchange their observations and discuss their respective questions. They should write their most important conclusions down.

3. Next, ask each of the groups to share their thoughts with the rest of the class.

REFLECTION (10 minutes)

1. Discuss the experience with the class. The following questions should help:

   - What did the fragment of the short story you just read make you feel and think?
   - Was it an interesting experience? Why?
   - Or maybe you found some parts of it strange? Difficult to understand (e.g., the vocabulary)? Or funny?
   - How do you like Lem's vision of the future?
   - Are any of the AI-related dangers that you mentioned real? Do they make you anxious? Or are you confident and unconcerned? Justify your opinion.
   - Do you see any potential new opportunities that could be created by AI as depicted in the story?
   - What is Lem's story saying about mankind's relationship with technology? Would you like it if an AI like the ones in the story actually came to be? What would be the advantages and disadvantages of creating it?



Tip

Moderate the discussion closely. Write the dangers and opportunities that come with using AI on the board/flipchart (or ask one of the students to do it).

THEORY (5 minutes)

Now, address the dangers and opportunities that you have written down, adding information from the Overview for Educators section if any of it is missing from the list. Tell the students about the dangers and opportunities associated with using AI in education. Explain that you are focusing on this because artificial intelligence will be increasingly present and utilized in education.

PRACTICE (15 minutes)

1. Ask the students if they use AI, and if they do, what for.

Tip

If you happen to utilize AI in your work as a teacher, you can share your experiences with the class. They will surely find it interesting. Remember to tell them about how AI helped you, but be sure to mention how it made your work more difficult or challenging.

2. Ask the students to go back to the groups from the previous task. Tell them that their new task will be to prepare a short (one or two minutes long) TEDx speech[1] on the advantages and possible unpleasant consequences of having one's homework done by ChatGPT. Give the groups 5–6 minutes to prepare. Not everybody has to speak. Let the teams decide who will present and what they will say. Perhaps those team members who choose not to present can do something else, e.g., hold up or display important AI-related keywords while the speakers present, or they could take care of background music.

Tip

If you prefer not to discuss the problem of artificial intelligence and homework with your class, you can suggest a different topic for their speeches, such as:

- What dangers and opportunities associated with AI use, present and potential, can you see around you?
- How would you like to be able to utilize AI in your daily lives? What uses do you dream of?
- Present a creative, futuristic vision of AI coexisting with mankind.

3. Ask the groups to present. Listen attentively and find something positive to say about every presentation. If your students are happy with them, maybe they can deliver their speeches again, but this time record them so that you can share them with the rest of the school. This is up to you and the class.

Extension Task

If you can devote more time to this topic and it is logistically feasible (if you have access to streaming or VOD platforms, etc.), you can choose a movie about artificial intelligence and watch it with your students (or ask them to watch it at home). Good picks for younger students are *A.I. Artificial Intelligence* (dir. Steven Spielberg, 2001) and *Ready Player One* (dir. Steven Spielberg, 2018). Older students might enjoy *The Hunger Games* (dir. Gary Ross, 2012) or *Ex Machina* (dir. Alex Garland, 2014). Each of these movies presents several different approaches to the utilization of AI. They make great starting points for a discussion on dangers and opportunities.

Tip

If you want, you can structure the lesson around a selected movie – the activities that refer to Stanisław Lem's short story can easily be reworked to suit any of the media listed above.

1. Explain the formula of TEDx speeches – catchy opening to grab the audience's attention; vivid examples to illustrate the points made; engaging the audience's interest; casual presentation style aimed at conveying important information in an interesting or fun way.

Appendix 1

In the short story *The Inquest* by Stanisław Lem, commander Pirx takes part in an experiment with the goal of seeing how machines built to imitate humans will fare when faced with the challenges of interstellar travel. As the commanding officer of a crew made up of humans and androids, Pirx has to evaluate the performance of his subordinates without knowing their true identities. He is understandably curious which of the crewmembers are humans and which are machines, but he proves unable to come up with a 100% accurate method of telling them apart. The situation gets even more complicated when some of the crew – humans and robots alike – start revealing their identities to the commander. In the fragment below, Pirx is talking with Burns, who admits that he is an android.

Stanisław Lem, *The Inquest* **(fragment)**

"Never can tell," remarked Pirx, his gaze still fixed on his own clasped hands. "Please go on."

"If you like ... but I can only speak for myself, not for others. My personality is the product of pre-programming and training. A human is similarly formed, though less by pre-programming. But unlike a human, who is born relatively undeveloped, physically I was then what I am now. And because I had neither a childhood nor an adolescence, but was only a multistat, first pre-programmed and then polymorphically trained, mine was a more static development. A human is a walking geological formation, the product of myriads of ages of heating and cooling, of one layer deposited on another, the first and most decisive being the preverbal—a world that is later buried by speech but which continues to smolder below—that stage when the brain is invaded by colors, shapes, and smells, when the senses are awakened after birth, followed by a polarization into the world and the non-world, 'the non-I' and 'the I.' Then come the floods of hormones, the layering of religion and instinct, whose history is the history of wars, of the brain turned against itself. I never knew those stages of frenzy and despair, never experienced them, and that's why there's not a trace of the child in me. I'm capable of being moved, could probably even kill, but not from love. Words in my mouth sound the same as in yours, only they mean something different to me."

"So you can't love?" asked Pirx, his gaze still reposing on his hands.

"How can you be sure? Nobody knows until it happens..."

"That's not what I meant. Maybe I could love. But it would be a love very different from yours. I have two abiding sensations: one is astonishment, the other a sense of the comical, both in response to the arbitrariness of your world. Not just of your machines and customs, but of your bodies, the model for my own. I see how things could be different, look different, work differently. For you, the world simply is; it stands as the only alternative, while for me, ever since I could think, the world not only was, but was silly. I mean the world of cities, theaters, streets, domestic life, the stock exchange, unrequited love, movie stars...

"Want to hear my favorite definition of a human? A creature who likes to talk most about what he knows least . . . "

“You despise your creators, don’t you?” Pirx asked calmly.

“Wrong. Any existence, I believe, even the most limited, is better than no existence at all. In many respects, they—my constructors—showed a lack of foresight. But more precious to me than anything, even more than my manmade intelligence, is the absence in me of any pleasure center. You have one in your brain, you know.”

“So I’ve heard.”

“But I don’t, which is why I’m not like a double amputee with a walking fixation…”

“Everyone is silly except you. Is that it?”

“Oh, I’m silly, too! Only in a different way. Each of you has the body you were given, but I could take any shape—a fridge, for example.”

“Nothing silly about that,” muttered Pirx. The conversation was becoming increasingly tiresome.

“It’s the whimsicality of it all,” said Burns. “Science is the renunciation of certain absolutes—of an absolute time and space, an absolute or eternal soul, and an absolute—because God-made—body. The conventions you take to be sovereign truth are legion.”

“Morality? Love? Friendship?”

“Feelings—never, though they may be arbitrarily determined. If I talk about you in this way, it’s because I find it easier to define myself by way of contrast. Your morality, above all, is a convention, yet it is binding even for me.”

“Interesting. Why?”

“I may lack any moral instinct, I may be insensitive—‘by nature,’ so to speak—but I know when one ought to show compassion, and I can discipline myself to do it. By necessity, you see. So, in a way, I fill the void in myself through logic. You might say I obey a ‘bogus morality,’ a facsimile so exact as to be authentic.”

“You’ve lost me. Where’s the difference?”

“The difference is that I act by the logic of accepted norms, not by instinct. Unfortunately for you, you obey almost nothing else but your impulses. In the past it might have been enough, but not any more. Your ‘brotherly love,’ for example, allows unbounded compassion for the individual—the victim of an accident, say—but not for ten thousand. Your compassion has its limits, only goes so far. . . . “

“You competed with humans in various mock-up tests. Did you always outperform the others?”
“The greater the challenge in algorithmic, mathematical terms, the better I performed. I’m most vulnerable when it comes to intuition. That’s when my computer ancestry begins to tell…”

“Meaning?”

“As soon as things become too complicated, when the number of new factors exceeds the norm, I’m lost. A human can rely on guesswork, sometimes even with success, but not me. I have to calculate all the odds, precisely and methodically; if I can’t, I’m done for.”

“What you’ve just told me is very important, Burns. So in an emergency…?”

“It’s not that simple, Commander. Yes, I’m immune to fear—human fear, that is—but not to the threat of imminent disaster. Even so, I never lose my, as you say, head, and the equilibrium gained can compensate for my lack of intuition.”

“You keep fighting to stay on top of the situation…?”

“Even when I realize I can’t win.”

“But that’s irrational, isn’t it?”

“No—just purely logical, because I will it.”

“Thanks, Burns. You may have been a big help to me,” said Pirx. “Oh, just one more thing. What are your plans for after our return?”

“I’m a cyberneticist-neurologist, and a pretty fair one … though, without any intuition, not the most creative. But I’ll find enough interesting work.”

“Thanks again.”

Burns rose, made a slight bow, and left. The door had no sooner closed behind him than Pirx sprang up from his bunk and began pacing the deck.

Lem, Stanisław. “The Inquest.” *More Tales of Pirx the Pilot*. Translated by Louis Iribarne, assisted by Magdalena Majcherczyk and Michael Kandel, Harper Voyager, 1983, pp. 111-14.

Getting Internet-Smart!

9. Look Out for Digital Traps!

OVERVIEW FOR EDUCATORS

Digital traps include any Internet-related situations in which we are at risk of losing something valuable – any goods or assets. This includes both illegal activities, such as phishing (scamming people out of sensitive information) and fraud, but also legal practices. For example, while playing a video game, we can get so engrossed in its storyline that we end up spending more money than we planned. Another example of a legal trap is when an online travel catalog uses attractive photos, leading customers to decide to purchase a package holiday. After thoroughly reading the contract, we might realize that we have accepted terms that do not meet our expectations and differ from those presented in the catalog.

It is impossible to list all the methods used by online fraudsters. However, most digital traps rely on:

- our desire to acquire or save money – we fall for scams because we really want something and we want to acquire it at the lowest possible price;
- our emotions – scammers count on us making quick, impulsive decisions without rationalizing our actions;
- our inattention – scams can often be detected if we carefully read the information we receive and pay attention to details. However, we do not do this very often.

The examples of digital traps presented in this lesson plan cover a few phenomena:

- **Phishing** – extracting sensitive information or money through false messages (sent via social media, messaging apps, SMS text messages, or email), often linked to fake websites. Criminals attempt to obtain our data by posing as trusted companies and institutions (e.g., a courier company or a bank). They rely on our trust in brands we know and associate with reliability. In the same or subsequent messages, they send us a link to a website that closely resembles that of a known company and ask us to provide personal data or make a money transfer.
- **Microtransactions** – online payments, e.g., on streaming or music platforms, or in video games, quick and cashless. These are based on the principle of small but frequent payments. Microtransactions are characterized by immediate gratification – we gain access to the goods/services we purchase directly after making the payment. This is particularly significant in the case of young people. Microtransactions are not prohibited. The small amounts of individual transactions make it easy to lose track and spend more than intended, especially if we get carried away by emotions related to, for instance, a favorite game.

- **Fake online stores** – these scams capitalize on our desire to obtain goods (e.g., a new cell phone) for the lowest possible price. An exceptionally attractive offer often prompts us to act quickly. Unfortunately, after transferring the money, we may never receive the product we ordered.
- **Fake fundraising for a noble cause** set up by the scammers. They present us with a story designed to elicit strong emotions and prompt us to make a transfer without checking its authenticity. Time is a crucial factor here – we are urged to transfer money quickly, otherwise the cause will fail.
- **Fake emergency regarding a family member** – an extortion scheme based on our fear on behalf of a loved one and our desire to help them. Fraudsters gather information about someone close to us, including where they live and what they do. We then receive a call from someone posing as a public service official, telling us, for example, that our loved one has caused a car accident, is about to have their first hearing which is going to be crucial for their future, and needs a quick transfer for a good lawyer. Fraudsters can even mimic the voice of this person and pretend to give them the phone for a moment. Sometimes mimicking the voice is unnecessary, as the emotions during the call are so overwhelming that simply having someone of the same gender on the phone is enough to trick us. The fraudsters hope that when in a hurry, we will transfer the money without contacting anyone else.
- **Taking over social media accounts** – identity theft enables fraudsters to commit further crimes in our name. A common method is sending a link (for voting on a topic of interest to us, or supposedly from a friend, e.g., "I have a photo for you, log in and download it here: [link]"). Clicking on the link takes us to a fraudulent website where we are asked to provide our personal information. If we do, the fraudsters can use this information to take over our social media accounts, creating opportunities to extract data or money from our friends, and to gather information that enables them to, for example, take out quick loans in our name.
- **Fake social media profiles** created by scammers and controlled by algorithms (software applications that run accounts in an automated manner are called **bots**), people or a combination of both (such accounts are called **cyborgs** – they are managed interchangeably by bots and humans). Fake profiles enable fraudsters to extract money, distribute illegal content, and influence the opinions of others. Liking (following) such accounts or adding them to friends on social media only increases their credibility.
- **Service offers** that turn out to differ significantly from what we thought we were purchasing (e.g., vacation or overseas job offers). This method of deception, legal or otherwise (depending on the methods used), exploits our inattention or haste (e.g., last-minute offers). The proposal is very attractive, but the contract we are expected to sign after deciding to make the purchase contains different terms to those initially presented. Fraudsters often urge us to hurry, claiming that it is the last offer, that the promotion ends in a few hours, etc.

It is important to be aware that many of the traps listed above are crimes. They constitute fraud and often identity theft and the use (or rather misuse) of the victim's image. Others violate social media regulations (like having multiple personal accounts). Still others are not crimes (like microtransactions) or their classification depends on the situation (e.g. a contract

with a travel agency may contain prohibited clauses and break the law, or it may be merely unethical by business standards).

We cannot prepare our students for every possible digital trap, but we can develop and foster certain habits and skills in them – instill in them a way of thinking and acting that will make them safer online.

What Can We Do to Avoid Such Traps?

- Be aware that not everyone online is honest, or even an actual person.
- Understand the mechanisms used by criminals and service providers and the consequences of falling into traps – for ourselves and others.
- Build self-awareness – for instance, if we know that we can get carried away playing video games and spend more money on microtransactions than we planned, we can choose a payment method that allows us to set a spending limit.
- Stay vigilant – develop the habit of verifying the information and links we receive and the websites we visit. For example, we can call the bank to confirm whether a message is from them, call a friend to check if they sent us a suspicious link, and check the credibility of an online store by reading reviews (though this is not a fully reliable source of information as online reviews can be bought), or by verifying the company in the appropriate public registers.
- Read the terms of service and contracts before using a service.
- Be particularly cautious when an offer is suspiciously cheap, much better than the competition, or when we are pressured to make a decision quickly.
- Pay attention to details – phishing websites and messages usually contain errors; their details differ from those of the institutions they are trying to impersonate. It is worth noting the color and details of logos, the website address, whether the connection is encrypted, whether there are any typos in the message, etc.
- Rely on our consumer experience – if a company whose services we use suddenly changes something in its operations (login method, service delivery or communication with us), check if it is not a scam.

What to Do if We Fall into a Trap Anyway?

STEP 1: limit our losses – think about what needs to be done and plan our course of action, i.e., whether to request the restriction of our personal data, which accounts to block, and who to notify in order to prevent further losses.

STEP 2: try to recover what we have already lost – review the contract with the service provider and look for grounds for a complaint, contact institutions that can help us, and report the situation to them (social media administrators, consumer rights advocates, the relevant organization representing service providers, police, or the prosecutor's office).

STEP 3: consider how to avoid this and other traps in the future – learn about similar cases, review and reconsider our habits, and share our experiences with others to warn them.

GLOSSARY

bot	software that automates certain actions. In the context of fake social media profiles, it refers to an account controlled by scripts and algorithms (i.e., automatically).
cyborg	a fake social media account sometimes managed automatically (e.g., at night) and, at other times, by a human, which makes it harder to detect.
digital traps	for the purposes of this lesson plan, digital traps are any (online) situations where we run the risk of losing valuable assets. This includes both illegal activities, such as phishing for data or money, and legal ones, such as microtransactions.
microtransactions	payments, most often made online, based on the principle of small but frequent contributions. They are not prohibited but their mechanism makes it easy to spend more than planned.
pishing	extracting data or money through false messages, often linked to fake websites. Phishing fraudsters usually impersonate well-known, trusted brands – on social media, through messaging apps, SMS text messages, or email.

LESSON PLAN

Objectives

The students:

- are aware of the dangers posed by online scams;
- have a basic knowledge of the mechanisms that govern online scams and other traps, and understand the consequences, including legal ones, that they lead to;
- know what to do in order to avoid digital traps and what actions to take if they get scammed;
- are able to verify websites and receive information to reduce the risk of getting deceived.

Materials

- printed-out example cases and an answers table (Appendixes)
- sticky notes

Procedure

There are two variants of the lesson plan for you to choose from:

OPTION 1

EXPERIENCE (10 minutes)



Tip

Before the lesson, read the ten example cases (digital traps) from Appendix 1. Consider how many cases you will be able to cover during the lesson. While selecting them, take into account how big the class is, how quickly your students work, and how likely it is for them to encounter situations like those described in the examples. If you find one case that is particularly important, you can focus the entire activity on it and discuss it in depth.

1. Explain to the class that the subject of the lesson is going to be digital traps and methods of avoiding them. Divide the students into groups and ask each of the groups to draw one case (example situation from Appendix 1) at random. Each group's task will be to analyze their examples, taking into consideration the questions associated with every case (Appendix 2).

2. Ask the students to write each answer on a separate sticky note. Then ask them to put their answers next to the relevant questions in the shared answer table (Appendix 2).

3. It is good to go over one example with the class before the students start working in groups (you will find a suggestion in Appendix 3).

4. When the groups are working, draw the table below on the board or flipchart.

	Case/group 1	Case/group 1	Case/group 3
Question 1	space for sticky notes with answers		
Question 2			

REFLECTION (15 minutes)

1. Ask the students if they enjoyed working on this task. Then invite the groups to read their cases out loud.

2. Ask if they have experienced or heard of anything similar to the example situations. Then ask the class to take a closer look at the answer table on the board/flipchart.

3. Summarize the results of your students' work, drawing their attention to recurring answers, but also to any differences you spot.

THEORY (10 minutes)

Using the Overview for Educators section, explain what digital traps are, why we fall into them, and what we can do in order to minimize the risk of getting scammed online. For each of these traps, tell the students what actions to take should they fall into it. Label every situation analyzed by the groups (e.g., microtransactions, phishing). Remark that not every type of digital trap is automatically illegal and emphasize that they can be very different. Let the class know that you are covering only a few examples out of the many possible risks and that the online world changes so much and so quickly that we are unable to prepare ourselves for every possible danger. We can, however, hone a set of skills and foster behaviors that make us a little safer on the Internet.



Tip
If time permits, you can discuss some of the examples that have not been covered or that you omitted from the lesson plan.

PRACTICE (10 minutes)

This stage of the lesson can be done in one of two ways:

OPTION 1.1.

The students work in groups, preparing information for other Internet users that will warn them about the dangers of a chosen digital trap. They can work with the trap they have already analyzed together as part of the Experience stage or draw a new one. You can make this task more interesting by asking the groups to present their work in a particular form or format (text, image, video, etc.).

OPTION 1.2

The class, working in groups or as a whole, creates a list of tips that protect Internet users from digital traps.

OPTION 2

EXPERIENCE (10 minutes)

Divide the students into teams and ask them to analyze the cases from Appendix 4 (select a few or give each group copies of all of them) and assign names from Appendix 5 to the example situations. Then, for every case labeled this way, have the students choose from the list the reasons why people fall for it:

- Inattention
- Desire to save money
- Lack of time
- Desire to obtain something at the lowest possible price
- Haste
- Acting on emotions
- Fear for a close one
- Being overly trusting of online strangers
- Naivety
- Lack of experience
- Lack of knowledge
- Routine
- Others – provide examples

REFLECTION (10 minutes)

Ask the students if they found the task easy or difficult, and why. Check if the groups have properly labeled their cases.

- What reasons did your students point to?
- Have all the groups chosen the same reasons?
- Which of the situations covered during the activity do your students believe to be the most dangerous and why?

KNOWLEDGE (5–10 minutes)

Using the Overview for Educators section, organize the information about digital traps – define them and list the reasons why people fall into them. Remind the students that, in many cases, there can be more than one reason. Emphasize that we are not doomed to fall into traps – we can develop habits and behaviors that will make us safer from data or money extraction and other scams.

PRACTICE (15–20 minutes)

Tell the students that they will continue working in the same groups as before. Give each group one or two of the cases that the class decided were the most dangerous. The groups' task is to consider:

- What to do if we have already fallen into a trap?
- How to limit our losses (disable the trap here and now to prevent it from hurting us any more)?
- How can we try to get back what we lost?
- How can we prevent such situations from arising in the future? (Ask the groups to write their answers to this question down.)

Listen to the groups' answers to the first three questions. Next, working together with your students, use their answers to the fourth question to create a list of actions and behaviors that can help people avoid falling into online traps – write the list on the board/flipchart, or wherever you like. Ask the groups to add only new ideas to the list, without repeating what has already been said. Using the Overview for Educators section, discuss the habits and behaviors that decrease our likelihood of getting scammed.

Appendix 1

Cases (Example Situations) for Both Lesson Variants (Options 1 & 2)

In the first variant, it is best to hand the cases to the students unlabeled, i.e., without naming the phenomena they describe. You will label them during the Reflection and Knowledge stages of the lesson.

The second lesson variant presupposes that you hand out cases and labels separately.

Phishing – A Fake Message from an Alleged Courier Company

Case 1

Johnny often buys things online. For delivery, he usually chooses parcel lockers – it's convenient for him. Today he received a text message:

"YouR pacage is waiting in the parcel locker. To pick it up, goto our# site (9link here) and enter your details."

The site asks for his first name, last name, and Social Security number.

A Fake Online Store

Case 2

Andy had been searching online for a new phone for a while. He finally found his dream model. In an online store that he hadn't heard of before, the phone was $250 cheaper than the next best offer. Andy paid via quick transfer (the store didn't offer a cash-on-delivery option). He never received the phone he ordered, nobody answered the store's phone number and he got no response to his emails.

Microtransactions

Case 3

Ella plays online games. She loves it and spends a lot of time on it. Her in-game character is already quite advanced, but she didn't get all that way just by playing. She bought some equipment directly in the game, as well as some from other players. The items from the players were expensive. As for the in-game payments, Ella doesn't care about those – they are small amounts – though she makes them fairly often. She has her card linked to the game.

Appendix 1

Phishing – A Fake Bank Website

Case 4

Adrianna has her first bank account and a card. She rarely logs into the bank other than through the app, but one day she received an email saying that due to some modifications to the login system, she needs to change her password. The link to the bank website was provided in the email and Adrianna clicked it. The website it took her to looked just like the one she was familiar with. She logged in, entered her password, and confirmed it with a code. After a while, she discovered that there was no money left in her account. All her funds had been withdrawn on the day she changed her password.

Fake Charity Fundraiser

Case 5

Max came across this story on social media. It really moved him. Little Alice was asking for money to fight glioma, a rare brain cancer. She was only five years old. The fundraiser included her picture playing with her siblings, as well as a photo taken of her in hospital. Max didn't have much money and wasn't earning any, but he still donated to the girl's treatment. After some time, he read in the media that the fundraiser was fake and Alice never existed.

Vacation Offer Different from what was Described in the Brochure and Seen on the Travel Agency's Website

Case 6

Anita, Jackie, and Alex were going on vacation without their families for the first time. Their parents promised to finance their trip, but the girls had to find an interesting, affordable offer themselves. They chose Egypt. Through a travel agency, they found an offer that seemed very attractive. The brochure showed a hotel located 100 meters from the beach, rooms with a sea view, and a swimming pool. The parents gave the girls money for the trip. On arrival, it turned out that their rooms were small and cramped, the hotel was located a kilometer from the sea, and there was an extra charge for using the pool at a nearby hotel (theirs didn't have one). Back home, they filed a complaint but found out that the conditions they had experienced matched those in the signed contract, even though they didn't match the ones from the brochure.

Appendix 1

Fraudulent Overseas Job Offer

Case 7

Adrian and Martin had just turned 18 and wanted to earn some extra money. They found a job offer online – they were supposed to be waiters in a good restaurant in the UK. Upon arrival, they found out that even though they had paid the intermediary company for finding the job, they were to work as dishwashers and wave goodbye to any possibility of earning tips.

Fake Family Emergency

Case 8

Yesterday, Christian's parents received a phone call from England, where his sister Monica lives. A policewoman was calling. She said that on her way to the office, Monica had caused a fatal car accident. The policewoman provided the name of the company Monica works for and the make and registration number of her car. She said that in half an hour, there would be a court hearing, during which the judge would decide whether Monica would go to jail for three months and what evidence and testimony to base their final verdict on. Monica could be assigned a court-appointed lawyer, but the public defender in question has no experience in such cases. A good private lawyer costs money. Monica would get one if her parents immediately transferred 5,000 euros to the specified account. During the conversation, the policewoman put Monica on the phone. The parents heard only „Help me, help me, please". They transferred the money. It was only after making the transfer that they called their daughter. It turned out there had been no accident at all.

Fake Social Media Account

Case 9

Pauline received a friend request from Paul. She didn't recognize him and clicked on his profile. He only had a profile picture and two posts; his details were unavailable. However, he shared five mutual friends with Pauline. She contacted them, but none of them recognized him

Fake Link

Case 10

Matt received a message from his friend on a messenger app: „I have a cool picture from the past for you. Click this link to download it." When he clicked, he was taken to a page asking for his Facebook login and password. He entered them.

Appendix 2

Answers Table for Option 1 Lesson Variant (All Groups Use the Same One)

Case questions

1. WHAT DOES THE PERSON WHO SET THE TRAP STAND TO GAIN FROM IT?	
2. ARE THEIR ACTIONS LEGAL OR NOT?	
3. WHAT DOES THE PERSON WHO FALLS INTO THE TRAP STAND TO LOSE?	
4. WHY DID THE PERSON FALL INTO THE TRAP? WHAT MADE IT EASIER FOR THEM TO GET TRICKED?	
5. WHAT CAN WE DO IN ORDER TO AVOID BEING DECEIVED?	
6. WHAT CAN WE DO WHEN WE HAVE ALREADY FALLEN INTO A TRAP?	

Write each answer on a separate sticky note and place it next to the relevant question.

Appendix 3

Example Discussion of a Case from the First Variant of the Lesson Plan (Option 1)

Case 6 (Vacation offer that was different from what was described in the brochure and on the travel agency's website)

Anita, Jackie, and Alex were going on vacation without their families for the first time. Their parents promised to finance their trip, but the girls had to find an interesting, affordable offer themselves. They chose Egypt. Through a travel agency, they found an offer that seemed very attractive. The brochure showed a hotel located 100 meters from the beach, rooms with a sea view, and a swimming pool. The parents gave the girls money for the trip. On arrival, it turned out that their rooms were small and cramped, the hotel was located a kilometer from the sea, and there was an extra charge for using the pool at a nearby hotel (theirs didn't have one). Back home, they filed a complaint but found out that the conditions they had experienced matched those in the signed contract, even though they didn't match the ones from the brochure.

Questions

1. What does the person who set the trap stand to gain from it?
   Customers; money
2. Are their actions legal or not?
   it depends on the tricks and manipulations used
3. What does the person who falls into the trap stand to lose?
   Money; peace of mind; a proper and relaxing vacation
4. Why did the person fall into the trap? What made it easier for them to get tricked?
   the desire to save money; a strong need to own something; haste; inattention during contract signing; not having read the contract they are signing; not having verified the travel agency
5. What can we do in order to avoid being deceived?
   read the contract before signing; be cautious when something is much cheaper than everywhere else; verify the travel agency in appropriate public registers or with a relevant organization representing such service providers
6. What can we do when we have already fallen into a trap?
   file a complaint; notify the police; go to court

Appendix 4

A List of Phenomena in the Cases and a List of the Reasons that Make Us Fall into Digital Traps (for Option 2 – the Second Variant of the Lesson Plan)

List of Phenomena

Phishing – a fake bank website
Phishing – a fake message from an alleged courier company
Fake online store
Fake social media account
Fake link
Microtransactions
Fake charity fundraiser
Fraudulent overseas job offer
Phishing – a fake bank website
Fake family emergency
Vacation offer different from what was described in the brochure and seen on the travel agency's website

List of Reasons

Inattention
Desire to save money
Lack of time
Desire to obtain something at the lowest possible price
Haste
Acting on emotions
Fear for a close one
Being overly trusting of online strangers
Naivety
Lack of experience
Lack of knowledge
Routine
Others – provide examples

Module 3

Me in Relationships with Others

Me in Relationships with Others

1. Emotions on the Internet

OVERVIEW FOR EDUCATORS

Experiencing emotions is an intrinsic part of human life. We feel something at practically every moment, although we tend to ignore some **feelings** and sensations (the signals sent to our brains by our bodies). The feeling of calm is a great example – when we feel calm, it may appear that we are not feeling anything at all, i.e., not experiencing any particular emotions. Sometimes, however, our emotions are so powerful they become hard to bear.

We have evolved the ability to experience emotions for a reason, although it can be difficult to understand the purpose they serve – especially if we see them as an obstacle or annoyance.

But why do we experience emotions at all?

1. First and foremost, they are signals that inform us whether we have everything we need to live and grow – unpleasant feelings tell us that we are missing something and pleasant ones are a sign that everything is alright with us.
2. What exactly do feelings – emotions and sensations – tell us? One of their crucial functions is reminding us about our important **needs**, fulfilled or otherwise. For example, when we feel hungry, it is a signal that we need to eat something. If we are angry, perhaps someone has crossed our boundaries. And when we are feeling sad, it is a sign that we have lost something or that we are missing intimacy or company.
3. It is worth remembering that feelings appear whether we like it (or want it) or not. They may be caused by the actions of others, but also by our own thoughts, experiences, interpretations, the movies we watch, the books we read, or memories (e.g., we start to experience pleasant emotions while thinking about our holidays). The opposite may also be true, that is, our emotions can influence our thoughts (e.g., when we are angry with someone, we tend to think badly of that person).
4. We may not be able to control our emotions but it is up to us how we behave upon noticing them. We should be mindful that not everything we do under their influence is good for us (e.g., we may write a comment when we are angry and regret it later when the emotions subside; we may feel too ashamed to speak in public even if we have something important to say; and fear can paralyze us leaving us unable to react when someone is getting hurt).

Some people try not to feel emotions, especially unpleasant ones. Sometimes we try to ignore them or pretend that we are not feeling what we are feeling (in order to fool someone, or even ourselves). When the emotions we are experiencing are intense, we may act in ways that drown them out and bring temporary relief. One good example is “eating our feelings away,” or *emotional eating*, as this phenomenon is called, which means consuming large amounts of sweets and/or fast food in order to feel better for a short while, even though, in the long term, such eating habits are bad for us. Another example could be “scrolling our emotions

away" (**emotional scrolling**, as we call it in this book) or, to use the recognized albeit rather pessimistic term, *doomscrolling*, which means consuming large amounts of digital content that, much like fast food, is not good for us (doomscrolling usually refers to the consumption of inordinate quantities of – usually depressing – online news). So, it is not only chocolate and crisps that we fall back on in times of distress. A badly structured digital diet often becomes the coping mechanism of choice within today's society.

It is possible to break out of the vicious cycle of emotional scrolling, although the process may be long and uncomfortable, especially if we have already formed some emotional release or venting **habits** related to the practice. Instead of reacting automatically, we can stop and try to decipher the information behind our emotions. Every time we realize that we have been consuming potentially harmful content (i.e., content that elicits extreme reactions from us, takes up too much of our time, and, in the long run, has no beneficial effects on our wellbeing), we can do three simple things:[1]

1. Ask ourselves what we are feeling at that moment (you can use the emotions infographic from Appendix 1).
2. Try to understand what those emotions are alerting us to, i.e., what need they are signaling (you can use the list of needs from Appendix 2).
3. Consider whether there is a way to satisfy this need that would be beneficial to us (we can expand the culinary metaphor and, instead of "eating the need away" by consuming unhealthy food, look for a better way to satisfy our hunger).

Examples

When somebody writes a mean comment that makes us feel sad, perhaps we need to share our feelings with a friend and spend some time with them. Instead of scrolling through news and messages, why not call a friend and go for a walk?

If we catch ourselves being angered by an online video, it can mean that the video is somehow attacking our core values (e.g., equality, respect, and truthfulness). We could, in the spirit of those values, report the video, block the content, or just talk with somebody about it.
Understanding one's needs and feelings may seem difficult if one has not tried this approach before. Supportive and non-judgmental social relations can be a great help.[2] When our nervous system is in a state of emotion-induced upheaval, our first recourse should be to contact someone calm and non-judgmental. In their presence, it is easier for us to identify the needs signaled by our intense feelings and we can search together for ways to address and satisfy said needs.

GLOSSARY

emotion (from the Latin *emovere* – to remove or to stir up) – a subjective experience of an inner movement (change of state) that may encompass both feelings (mental states) and sensations (physiological states).

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1. The suggestions have been created in the spirit of **Nonviolent Communication** (NVC) – an approach popularised by the psychologist Marshall B. Rosenberg. You can read more about it in one of Rosenberg's books, e.g., Nonviolent Communication: A Language of Life, Encinitas, CA: PuddleDancer Press, 2003.
2. You can read more about how social relations help us manage and understand emotions in Stephen W. Porges' *The Polyvagal Theory: Neurophysiological Foundations of Emotions, Attachment, Communication, and Self-regulation*, W. W. Norton & Company, New York, 2011.

emotional scrolling	a habit that, in the short term, enables us to cope with difficult emotions by consuming social media content in harmful amounts and ways. Similar to *doomscrolling*, which means the compulsive consumption of negative online news in inordinate quantities.
feelings	mental states that express our attitude toward the world, other people, ourselves, and whatever happens to us. In this chapter, feelings are used interchangeably with *emotions*. Also consider *sensations*, which are feelings in our bodies resulting from outside stimuli being processed by our sensory apparatus.
habits	routine, repetitive actions, often done automatically.
needs	universal qualities necessary for us to live and grow. They can relate to the physical sphere, personal wellbeing, or our relationships with others and with the world.
Nonviolent Communication	(also called *empathic communication*) – a communication and relationship-building paradigm created by Marshall B. Rosenberg. According to this approach, the easiest way to build relationships with other people is achieved through understanding one's own feelings and needs and listening in on the feelings and needs of others.

LESSON PLAN

Objectives

The students:

- are more aware and mindful of the emotions they experience while online;
- understand that emotions alert us to important needs;
- know that there are different strategies for addressing one's needs (and not all of them have to do with the Internet).

Materials

- pens and paper for every student
- printed or projected emotions infographic (Appendix 1)
- printed or projected needs infographic (Appendix 2)
- sticky notes

EXPERIENCE (7 minutes)

1. Ask the students to spend some time on quiet reflection. Tell them to try and remember a recent online situation that filled them with emotions. Have them write a sentence or two about what exactly happened, letting them know that they do not have

to show anybody. Next, ask them to evaluate how strong their emotions associated with the described situations were on a scale of 1 to 10 and write the numbers down.

2. Project the emotions infographic on the board or print it out beforehand and put it up now. Next, ask every student to approach the graphic and draw a dot or place a small sticky note next to the emotion they experienced.

REFLECTION (8 minutes)

1. Encourage the class to study the infographic and check which emotional states got the most dots or sticky notes. Analyze the exercise together with your students, using the following questions:

    - Which emotions have come up the most often?
    - Are there any emotions in the infographic that have no dots or sticky notes at all? What are they?
    - Have there been more pleasant or unpleasant emotions, overall?
    - Are the emotions chosen by the students similar or varied?

2. Next, check how intense your class felt their emotions from the exercise were. You can ask the students to raise their hands if theirs were within the 1–3 range of intensity, then within the 4–6 range, and again within the 7–10 range.

THEORY (20 minutes)

Divide the class into groups of three or four and ask them to write down their answers to the question **„Why do we need feelings?"** Give them no more than 5 minutes for this activity. Explain that their task is to name as many functions that emotions can serve in our lives as possible. When the groups are done, ask them to read their answers to the rest of the class. Next, using the Overview for Educators section, go over the new information, and, working together with the class, systematize their newly acquired knowledge of emotions by listing the most important aspects.

Emphasize that the main function of emotions is to inform us whether the state we are in is conducive to our wellbeing, safety, and self-actualization. When the emotions are unpleasant, it is usually a signal that we are missing something. Pleasant ones, on the other hand, let us know that our needs have been fulfilled. Besides being signals that alert us to changes in our inner state, emotions sometimes provoke reactions in us and make us behave in a certain way. However, acting on our emotions is not necessarily beneficial. Sometimes, when we do something only to get an emotional release, we may end up hurting ourselves or our relationships. Ask the students if they are familiar with the concept of "eating away one's emotions." Discuss what is meant by this phrase. Using the overview from the beginning of this lesson plan, you can remark that sometimes, when the emotions we are experiencing are too difficult

or intense and we want to stop feeling them, we may reach for things that help us feel better at that moment, although doing so may not be constructive. Ask the students if they know any other methods people use to avoid confronting their feelings. If the class does not bring it up, tell them about emotional scrolling or *doomscrolling*. You can ask the students what those terms make them think about – what reflections or associations they spark.

Remark that it is possible to escape the vicious cycle of (digital) "eating emotions away." Instead of avoiding one's feelings, one can learn to decipher the information they relay. There are three simple things everyone can do to this end:

1. Ask themselves what they are feeling at that moment (one can use the emotions infographic from Appendix 1).
2. Try to understand what those emotions alert us to, i.e., what need they are associated with (one can use the needs infographic from Appendix 2).
3. Think about how to address the identified need in a beneficial way (expanding on the food metaphor, instead of "eating away one's needs" in a potentially harmful way, one can look for a healthier way of satisfying one's hunger).

Use the examples from the Overview for Educators section to explain this process.

PRACTICE (10 minutes)

Ask every student to return to the sheet of paper they described a situation on earlier and to recall the emotion the situation made them feel. Have the students try to name the need the emotion was alerting them to (what important message was it transmitting?) Observe that, if an emotion is pleasant, it usually points to a need that has been satisfied. Conversely, unpleasant emotions signal that we are missing something. If you think the class can benefit from it, you can project or put up the list of needs and ask every student to place a dot by the need they identified. Then encourage them to write down possible ways of addressing that need in a way that would be beneficial for them (and for others). If they have enough ideas, they should come up with several different ways.

Take note!
The exercise in identifying the needs that emotions inform us about may not be easy, but it is worth practicing this skill. By doing this, we learn to decipher the information our feelings alert us to. If your students are not sure whether they are able to properly identify their needs, tell them that the most important parts of the exercise are the process of soul-searching and the attempt at understanding the emotions that our needs have provoked.

WHAT WE FEEL WHEN OUR NEEDS **ARE SATISFIED**		WHAT WE FEEL WHEN OUR NEEDS ARE **NOT SATISFIED**
Energy		**No energy**
• agitation • enthusiasm • energy • liveliness		• apathy • indifference • dullness • moodiness
Comfort		**Discomfort**
• satisfaction • relaxation • carelessness • feeling rested • fulfillment • light-heartedness		• shame • tension • embarrassment • unease • tiredness • sleepiness
Inspiration		**Lack of inspiration**
• interest • excitement		• lack of interest • boredom
Joy		**Sadness**
• cheerfulness • playfulness • happiness • optimism • pride		• sadness • loneliness • worry • depression • disappointment
Calm		**Anxiety**
• calm • peace of mind • relaxation		• feeling on edge • tension • anxiety
Love		**Anger**
• friendship • affection • love		• annoyance • anger • fury
Gratitude		**Fear**
• gratitude • feeling moved		• fear • panic

Appendix 2

LIST OF **NEEDS**



Phisical

- Air
- Food
- Water
- Shelter
- Movement
- Rest
- Sleep
- Expressing one's sexuality
- Touch
- Physical safety



Autonomy

- Setting one's own goals, making one's own plans, and following one's dreams
- Self-worth
- Choosing one's own path toward self-fulfillment
- Freedom
- Space
- Spontaneity
- Independence



Self connection

- Authenticity
- Challenges
- Learning
- Clarity
- Competence
- Creativity
- Integrity
- Self-development
- Self-expression
- Self-worth
- Self-acceptance
- Self-respect
- Achievements
- Privacy
- Meaning
- Agency and influence over one's life
- Wholeness/unity
- Cohesion
- Growth
- Stimulation
- Trust
- Celebration of fulfilled needs and dreams and mourning the unfulfilled ones
- Purpose



Relationships with other people

- Contributing to the enrichment of life
- Feedback on whether our actions contributed to the enrichment of life
- Belonging
- Support
- Connection with others
- Company
- Closeness
- Sharing one's joys, sorrows, talents, and abilities
- Kinship/bonds
- Attention, consideration
- Emotional safety
- Honesty
- Empathy
- Interdependence
- Respect
- Equal opportunities
- Being seen
- Understand and be understood
- Trust
- Warmth
- Reassurance
- Love
- Intimacy
- Feeling strong as part of a group
- Cooperation
- Mutuality



Celebration of life

- Fun
- Humor
- Joy
- Ease
- Adventure
- Diversity/variety
- Inspiration
- Simplicity
- Physical and emotional wellbeing
- Comfort
- Hope



Connection to the world

- Beauty
- Connection with nature
- Harmony
- Order
- Cohesion
- Peace

Me in Relationships with Others

2. From Communicating to Building Relationships

OVERVIEW FOR EDUCATORS

Conversations are among the simplest tools that enable us to build relationships with others. At the same time, the messages we "send" to each other (the information we transmit) as part of the act of talking with someone are strongly influenced by the nature of the relationship we have with that person. We talk differently to people close to us and we hear their words differently from those spoken by people we like or, especially, people we have had bad experiences with. We may also interpret the same message differently based on whether we are having a pleasant exchange or fighting with our interlocutor.

Let us take a closer look at a simple example. Imagine that Kate's classmate Anne writes to her on a messaging app, "You look a little rough this morning. What have you been up to?", which Kate can interpret in a few different ways, depending on her current mood and the nature of her relationship with Anne. If Kate sees Anne as a close friend and they both spent the previous night partying, Kate could interpret these words as an innocuous in-joke referring to their shared experience. However, if Kate does not like Anne, she might feel criticized and perceive the message as a mean jab. If those words were uttered by an adult, depending on the situation and her relationship with that person, she could interpret the message as either an expression of concern or as the person addressing her being overly controlling. Any of those possible interpretations, however, may be far from what the person speaking actually intended.

Why is that? Our minds automatically interpret words and images, but our interpretations often do not align with the **intentions** of the person uttering or posting the communication. How we interpret the words of others can be influenced, among other things, by:

- our relationship history;
- our emotions and mental state at that time;
- how much we care about the relationship;
- whether we are talking online or in person (a limited context may cause us to "fill in" the perceived gaps in the communication or misinterpret the intentions of others).

One of the most important distinctions in communication is between observing and interpreting. In order to be able to consciously establish and maintain communication, we need to understand these two concepts better and maybe attach greater importance to how we understand messages from other people. An **observation** is more neutral and objective. Simply put, this is similar to what a video camera does – it is recording facts, such as reading social media posts, hearing some words being spoken or looking at a photo or a video. A simple act of noticing and taking in. Interpretations, on the other hand, are the thoughts, opinions, and **judgments** that arise after we have taken in the message or content.
Sometimes, our interpretations come together in our heads as entire narratives about other people and the world. As a possible consequence of these narratives, we may misinterpret the intentions behind communications. But does this mean that interpretations as such are

bad? Not necessarily, as they play an important role in our lives – their function is to support us and warn us about entering into relationships that may not be good for us.

The ability to distinguish between observing, i.e., perceiving a message or image and interpreting it, i.e., thinking about it and judging it, is essential if we want to avoid conflicts and misunderstandings. By developing this ability, we can realize that what we think when reading or listening does not always align with what the other person had in mind. This is the first step toward building more conscious relationships.

If we want to make sure we have not misinterpreted what the other person said and, at the same time, share with them how we understood them, we can use a simple communication scheme that enables us to express our thoughts and emotions, simultaneously giving the other person an opportunity to clarify their intentions and the thoughts behind the message.

The scheme looks like this:

Observation (what happened, what words were said) **+ my interpretation** (my thoughts and how I understand what happened or what was said relayed to the interlocutor in a friendly manner) **+ verifying question** (making sure I understood the message the way the other person intended)

Here are some examples:

- "When you wrote in the group chat that..., I thought that you... Was that what you meant?"
- "Yesterday, you said that... It was my understanding that you wanted to call attention to... Did I understand you correctly?"
- "When I saw your post about... , I started wondering if you wanted to say that you were annoyed by... Was I right?"

By communicating in this way, we can distinguish between an observation and our interpretation or judgment, and also show that we care about our relationship with the other person by listening to what they meant. This scheme can be used both online and when communicating face-to-face.

GLOSSARY

intention	our attitude to the world or to other people; an active approach to something that often influences the course of events or the nature of a relationship.
interpretation	the meaning we ascribe to words and actions.
judgment	an opinion about people or things. It may refer to the world, other people, or ourselves.
observation	perception of reality without judgment and interpretation. Naming what we can see without assigning any particular meaning to it is a very important part of the process of communication.

LESSON PLAN

Objectives

The students:

- are able to distinguish between observation and interpretation;
- understand how online communication influences their relationships with other people;
- realize that the nature and history of the relationship with another person affects how we interpret our communications with them;
- are practicing their conscious communication skills online;
- are familiar with and able to use a simple communication scheme that enables them to distinguish between observing and interpreting, as well as to respect the other person's intentions.

Materials

- printed worksheets (Appendix)

EXPERIENCE (15 minutes)

1. Divide the class into four or five groups and hand each group a different worksheet (Appendix). The task for each team is to read the communication at the top and then **write down their first associations with the person who wrote it at the bottom of the page**. This reaction can include thoughts, judgments, and interpretations – in a nutshell, it is a stream of consciousness that happens immediately after reading the statement.
2. Before the groups start the task, read the sentence about the person who wrote the message (this will be different in each round – read it each time after switching groups):
    1. The person who wrote it is a good friend of yours.
    2. You have known this person for a long time and you know they are generally kind to you and others.
    3. The person who wrote this is disliked by everyone in your circle.
    4. You had a fight with that person yesterday.

    Emphasize that the groups should pay special attention to who wrote the message. This task should be done quickly and intuitively, with every round taking no more than two minutes.
3. After writing down their thoughts, the group should fold the paper so that what they wrote is invisible and pass it to the next team (e.g., clockwise). Repeat this action until the sheets return to the original groups.

Communications for the Worksheets

Group 1

Question on a local group: "Where can I get a passport photo around here that doesn't cost a fortune?"

Response: "I get so annoyed with people asking for things but not wanting to pay. Maybe you should give everything away for free instead of posting stuff like this."

What feelings and thoughts come to mind about the person writing this?

Group 2
Post in a local group: "Can the city finally do something about the homeless people entering the apartment buildings? This needs to stop."
Response: "People, aren't you ashamed of criticizing the homeless and acting all superior? You need to go through something like that to have a say. Every personal tragedy is different. You must be shallow and thoughtless if you criticize people in such predicaments."

What feelings and thoughts come to mind about the person writing this?

Group 3
Post in a local group: "I saw another dog tied up outside the store today. It howled and barked for half an hour."
Response: "Let's not exaggerate. Is something really bad happening to the dog? It's just impatient for its owner to return, that's why it's barking. There are bigger problems in the world than a barking dog."

What feelings and thoughts come to mind about the person writing this?

Group 4
Post in a local group: "Have you seen the new burger place that opened? I went, ate there, and I can recommend it."
Response: "So there will be even more fat people. Keep it up..."

What feelings and thoughts come to mind about the person writing this?

Group 5
Post in a messaging group: "A Chinaman talked to me today. Probably a tourist because he asked for directions to the museum."
Response: "Don't you know you mustn't say 'Chinaman'? Better think twice before you post something next time."

What feelings and thoughts come to mind about the person writing this?

REFLECTION (10 minutes)

When the worksheets return to the original groups, ask the students to unfold them, reveal all the answers, and read them.
Then, ask the following questions:

- Are the first thoughts and feelings of the different groups similar? If not, how do they differ?
- To what extent did the information about the person who posted the response influence the way you read it? Have you noticed that the messages from people close to us or generally kind to others were treated more leniently, and those written by people conflicted with us much less so?

You can also ask the class to name the emotions in each group's answers and check whether they differ (and to what extent). When you are ready to finish the exercise and sum it up, ask the following open question:

- In what ways do you think our relationships with other people influence our interpretations of what they say or write?

THEORY (10 minutes)

Explain to the class that what the groups wrote was their interpretation of what was said in the example posts. Point out that people interpret what others say in many different ways, and that the nature of our relationship with another person becomes the context in which we decode their intentions. Using the Overview for Educators section, emphasize that, on the one hand, a relationship may affect the way we interpret communications but, on the other, those communications may influence relationships. If a controversial comment was posted by someone we are fond of, we may try to justify that person's viewpoint more than we would a stranger's. However, if what they say attacks our values or stands in opposition to our beliefs, we may decide to distance ourselves from them.

Remark that it is crucial for communication clarity, both online and offline, to be able to distinguish between observing and interpreting or judging. Ask the students if they know the difference and make sure they understand it well. Next, ask them to follow up on the exercise by answering the following question:

- What does the way in which we interpret the words of others depend on?

Listen to your students' answers and, if any important information is missing, you can fill it in using the Overview for Educators section.

Finish the Theory part of the lesson by asking the students if they think that interpretation is a bad thing. Tell them that it does not have to be, but that they should be aware that we tend to interpret everything we see or hear, which is a lot of interpreting. If we want to build relationships consciously, we should make sure our interpretations align with the intentions of the person we are communicating with. This can be done using the scheme from the Overview for Educators section. You can write it down on the board or use a projector.

Observation (what happened, what words were said) **+ my interpretation** (my thoughts and how I understand what happened or what was said relayed to the interlocutor in a friendly manner) **+ verifying question** (making sure I understood the message the way the other person intended)

When you explain it, you can use the examples from the Overview for Educators section.

PRACTICE (10 minutes)

Tell the students to work individually on the final task. Ask them to try to remember a recent situation from their lives (an event or conversation) and, using the conscious communication scheme from the Theory part of the lesson, write down what they could have said to make sure their interpretation of the situation aligned with the intentions of the people they were interacting with. Encourage them to write their ideas in a way that would make them easy to use in the future. Volunteers may read their examples aloud but you could also ask the class to share their answers in pairs or small groups.

Appendix 1

Group 1

QUESTION ON A LOCAL GROUP:

"Where can I get a passport photo around here that doesn't cost a fortune?"

RESPONSE:

"I get so annoyed with people asking for things but not wanting to pay. Maybe you should give everything away for free instead of posting stuff like this."

What feelings and thoughts come to mind about the person writing this?

Group 2

QUESTION ON A LOCAL GROUP:

"Can the city finally do something about the homeless people entering the apartment buildings? This needs to stop."

RESPONSE:

"People, aren't you ashamed of criticizing the homeless and acting all superior? You need to go through something like that to have a say. Every personal tragedy is different. You must be shallow and thoughtless if you criticize people in such predicaments."

What feelings and thoughts come to mind about the person writing this?

Group 3

QUESTION ON A LOCAL GROUP:

"I saw another dog tied up outside the store today. It howled and barked for half an hour."

RESPONSE:

"Let's not exaggerate. Is something really bad happening to the dog? It's just impatient for its owner to return, that's why it's barking. There are bigger problems in the world than a barking dog."

What feelings and thoughts come to mind about the person writing this?

Group 4

QUESTION ON A LOCAL GROUP:

"Have you seen the new burger place that opened? I went, ate there, and I can recommend it."

RESPONSE:

"So there will be even more fat people. Keep it up..."

What feelings and thoughts come to mind about the person writing this?

Group 5

QUESTION ON A LOCAL GROUP:

"A Chinaman talked to me today. Probably a tourist because he asked for directions to the museum."

RESPONSE:

"Don't you know you mustn't say 'Chinaman? Better think twice before you post something next time."

What feelings and thoughts come to mind about the person writing this?

Me in Relationships with Others

3. Prevent and Avoid Polarization

OVERVIEW FOR EDUCATORS

In today's world, societies are much more exposed to polarization than in the past, and young people in particular often encounter a large amount of divisive content against their will. They come across it through traditional media, as well as messaging apps and social media platforms. Much more than in previous years, they participate in closed communities where they reinforce their beliefs and avoid diverse perspectives or have limited access to them.

Polarization (as in *social polarization*) means the division or segregation of society into groups that share opposing values. It is a social process that manifests in an absence of social dialogue or in limiting the public debate to mutual attacks. If polarization takes place along ideological lines, groups become unable to cooperate, no consensus can be reached, and necessary changes to society cannot be introduced.

Among the factors that contribute to polarization are:

- overlapping economic conflicts,
- conflicting values,
- modernization processes,
- rapidly changing realities,
- especially online: the so-called **filter bubbles**, omnipresent disinformation, political manipulations, populism, and actions taken toward **conflict** escalation.

Bart Brandsma, a Dutch philosopher and polarization researcher, believes that, in itself, polarization is not tantamount to conflict but, rather, is a process that reinforces the **us-versus-them** mentality in social groups. This categorization, in turn, is not fueled by the differences between the pursuits of the sides of the divide, but by the similarities between them.[1]

Polarization occurs in several stages[2]:

1. In the **prevention** stage (which lasts until escalation), polarized groups can benefit from dialogue – here, understood as an exchange of information on the identity of the people involved.
2. If conflict has already arisen (meaning that polarization has reached the **intervention** stage), dialogue is impossible, useless, or counterproductive. The sides of the conflict are more interested in prolonging its duration than in resolving it. This phase can only last for so long, though.
3. When keeping the conflict going requires more energy than ending it, polarization enters a new phase – that of **mediation**. Both sides realize what they want and try to resolve the conflict.
4. Dialogue only happens during the **reconciliation** stage, when both sides are ready to listen to and get to know each other.

1. Brandsma, Bart. *Polarisation. Understanding the Dynamics of Us versus Them.* BB in Media, 2020.
2. Ibidem.

Schools, just like societies, are in danger of polarization. Teachers can see when particular students sit apart from each other during classes or split into groups in the corridors or schoolyard. When this happens, it becomes crucial to spot the moment when the student community becomes strongly polarized. School administrators and teachers should, therefore, focus on creating an **environment that enables and encourages social dialogue**, so that all the students can feel safe and comfortable.

Divisions may also be deepened by the biases known as the *out-group homogeneity effect* and *echo chamber effect*. The out-group homogeneity effect is a tendency to perceive members of *out-groups* (social groups with whom one does not identify, as opposed to *in-groups*) as more alike and homogeneous, while the in-group is perceived as more varied and diverse. (Throughout the lesson, you may refer to this phenomenon as the *group effect* to save time.) An **echo chamber** is any situation in which people only have access to information and content that meets their expectations and does not undermine their previously held beliefs but rather strengthens them.

GLOSSARY

conflict	a situation wherein or a process whereby two or more sides (groups) have incompatible or mutually exclusive goals, interests, values, or needs.
echo chamber	an environment characterized by voluntarily limited access to information; participants in echo chambers reinforce their collective beliefs by only exchanging communications that align with the group's worldview, interpreting information in such a way that it appears to confirm their prior beliefs or hypotheses; a tendency to search for evidence that supports one's existing attitude.
filter bubble	(information bubble, online bubble) – a phenomenon whereby Internet users receive algorithmically curated informational content based on their previous online activity and the data collected about them. As a result of filter bubbles, people's access to diverse points of view and sources of information is limited, which solidifies and reinforces their preexisting opinions and beliefs.
out-group homogeneity effect	a bias whereby one tends to favor their in-group (the social group one belongs to or identifies with) and look down on out-groups.
polarization	division of society into groups with conflicting value systems. This manifests in an absence of social dialogue or in limiting the public debate to mutual attacks.
stereotype	a generalized, simplified image of a social group or a belief about it, based on which its individual members are evaluated and judged.

LESSON PLAN

Objectives

The students:

- understand the mechanisms of social divisions and conflicts better;
- understand one of the mechanisms of polarization – the out-group homogeneity effect;
- know how to analyze the workings of this mechanism;
- have experienced a situation that activated the out-group homogeneity effects.

Materials

- sheets of A3 paper
- markers or crayons

EXPERIENCE (15 minutes)

1. Start the lesson by asking the students if they use online messaging applications and if they do, which ones. Try to ascertain which of the apps is the most popular. Next, ask the class to list the personality traits of people who prefer messaging and those who prefer in-person communication. This should not be a long activity. What you need is several traits or adjectives.



Tip

Your students may say that people who prefer online communication are introverts, i.e., people who prefer to be alone, are more reserved and reflective, like to be left alone with their thoughts, avoid large social groups, and feel safer when they can use devices to communicate. Conversely, they may decide that the people who prefer face-to-face conversations are extroverts, i.e., they draw energy from social situations, like to spend time with their friends and to work in groups – they like to talk on the phone, but it can never replace in-person communication for them. Do not write the students' responses down – make this introduction a group conversation. The above examples are generalizations, of course, even stereotypes, but this is good for now – you need to work with some stereotypes before you introduce the concept later on.

2. Explain to the students that they will soon be switching places in the classroom. Ask those who prefer to communicate via the Internet to stand at one end of the room and those who prefer to meet in person to stand at the other end. Some students may be undecided—encourage them to choose a side.
3. Now, let them know that you will be asking a few questions. Depending on their answers, they will either switch sides or stay where they are. Each time, give them a moment to reflect in silence and look around the room.

    - Question one: **Do you like going to parties?**

    Give the class a few seconds to think and decide, then ask those who like going to parties to raise their hands. These students should move to the group that prefers

in-person contact (or stay where they are). Those who didn't raise their hands should move to the side that prefers online communication (or stay where they are).

- Question two: **When online, do you prefer to meet other people (and, e.g., play a game or watch something together) or to spend time alone, engaged in your favorite activities?**

Give the class a few seconds to think and decide, then ask those who like to be online with others to stand with the group that prefers in-person communication and those who prefer alone time, to stand with the online communication group.

- Question three: **Do you feel comfortable in large groups?**

Ask those who answered "yes" to stand with the group that favors in-person contact and those who don't feel comfortable in large groups to stand on the side that prefers online contact.

- Question four: **Do you recharge by being alone and in silence?**

Those who answered "yes" should stand with the group that prefers online contact. Those who answered "no" should stand with the in-person contact group.

- Question five: **Do you prefer playing online games or being on social media?**

Those who prefer online games should stand where the online contact group originally was. Those who prefer spending time on social media should stand where the in-person contact group originally was.



Tip
This exercise may create polarizing tendencies, so to maintain a positive atmosphere, it's a good idea to invite the class to gather in the middle and become one group again afterward. Then, ask the students to return to their seats.

REFLECTION (10 minutes)

1. Encourage the class to reflect on the experience. Ask them:

   - What did you notice during the activity? What caught your attention?
   - On what basis did you make your original choice to stand with one of the groups?
   - Did you notice that, while you were describing the attributes of the people who prefer online or in-person communication, you relied on generalization (stereotypes) and labels?
   - Do generalizations (stereotypes) help us notice diversity within a group or make it harder to see it?
   - Are there many people among you who did not change sides even once? Are they a big part of the class? (You can ask for a show of hands.)
   - What does this show? (The class should notice that the initial division – whatever it may have been – is superficial, as people with different preferences can

be closer to each other in other ways. This demonstrates that they can build or maintain relationships based on common ground).[3]

2. Now, move on to the questions with which you will introduce the Theory part of the lesson:

   - What are your associations with interpersonal conflict? (Try to elicit responses from more than one student.)
   - Can only individual people be conflicted, or does the concept extend to groups? What do you think?



Tip
It is important that the students realize that conflicts can be entered into by entire social groups (e.g., students from two different groups or classes).

THEORY (10 minutes)

During this part of the lesson, using the Overview for Educators section, call your students' attention to the following facts:

Polarization (as in *social polarization*) means the division or segregation of society into groups that share opposing values. It is a social process that manifests in an absence of social dialogue or in limiting the public debate to mutual attacks. If polarization occurs along ideological lines, groups become unable to cooperate, no consensus can be reached, and necessary changes to society cannot be introduced.

- In today's world, societies, including young people, are much more exposed to polarization than in the past.
- Young people in particular often encounter a large amount of divisive content against their will. They come across it through traditional media, as well as messaging apps and social media platforms. Much more than in previous years, they participate in closed communities where they reinforce their beliefs and avoid diverse perspectives or have limited access to them.

Explain that:

- Within filter bubbles (and, in a broader perspective, within our social groups), social and intergroup divisions may be deepened by the so-called *out-group homogeneity effect* and *echo chamber effect*, two phenomena connected to favoring one's social group (or *in-group*) and disfavoring other groups (*out-groups*). Explain the terms filter bubble, out-group homogeneity effect, and echo chamber.
- Polarization means the division or segregation of society into groups that share opposing values. This is a social process that manifests in an absence of social dialogue or in limiting the public debate to mutual attacks. There are many different factors that contribute to social polarization. Bring up the name of the author of this definition, Bart Brandsma.

If time permits, you can guide the class through the stages of polarization.

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3. The Reflection section and the group activity suggested above are based on a game that can be found at: https://civicsthroughplay.com/. Accessed 2 April 2024.

PRACTICE (10 minutes)

Divide the class into groups of two, three, or four students. Each group will have to brainstorm the ways in which people can create and bolster an **environment that enables and encourages social dialogue**, that is, an environment in which everyone can feel safe and comfortable.
Some of the groups should focus on how to do it in their class or school, and some on how to do it online, e.g., in a class group chat or in social media groups.
You may also decide not to divide the students into groups as part of this exercise and instead have them work together as a class, especially if there are time constraints. Regardless of which option you go with, ask the students to write their answers on the A3 paper sheet(s).



Tip
Suggest to the students that they should draw from their own experiences and consider whether there is something that polarized, conflicted groups may have in common.

In order for the class or school environment (but also for the society) to enable and encourage dialogue, the following conditions should be met:

- **everybody** should listen to one another without insisting on winning an argument at all costs, and try to understand the meaning behind what others say;
- students should be allowed to share their emotions;
- classes should **create and maintain shared values** (students do not have to share all values, such as freedom or equality, but the goal is to build on common ground, not to force anybody to accept something they do not identify with);
- clear rules should be established collectively within the classroom or school community (e.g., when someone speaks, others listen; everybody speaks only for themselves);
- people should show each other empathy;
- everybody should be aware of their personal stereotypes and not give in to them;
- people should be aware of online filter bubbles, the out-group homogeneity effect and echo chambers;
- everybody should try to go beyond their social group and filter bubble.

If you can dedicate more time to this activity, listen to all the groups (e.g., each group shares a different solution that might strengthen dialogue and create an atmosphere that supports it – continue until the ideas are exhausted). See if the same or different ideas emerged when considering different spaces (physical spaces like the school or classroom versus online spaces like group chats or social media groups).

If you only have enough time to listen to a certain number of responses, write the ideas down yourself. Make sure that the outcomes of the activity stay with the class, either in physical or electronic form, so that everyone has access to them.

It might be worth sharing the outcomes with the entire school community. Perhaps in a school newsletter?

4. On the Limits of Freedom of Speech (Including on the Internet)

OVERVIEW FOR EDUCATORS

Freedom of speech is undoubtedly the foundation of democratic societies. Even compared to other human rights – sets of principles protected in international law – this one is rather complex, as the lesson plan below exemplifies.[1] We need to begin by clarifying that **human rights govern the relationship between individuals (people) and the state (authorities)**,[2] and by outlining the basic legal frameworks that will be referenced below.

The global framework for human rights, including **freedom of speech**, is set out in several key documents. One of them is the Universal Declaration of Human Rights, adopted by the United Nations General Assembly in 1948. Its Preamble states, „the advent of a world in which human beings shall enjoy freedom of speech and belief and freedom from fear and want **has been proclaimed as the highest aspiration of the common people**."[3] Article 19 of the Declaration further asserts, „Everyone has the right to **freedom of opinion and expression**; this right includes freedom to hold opinions without interference and to **seek, receive and impart information and ideas** through any media and regardless of frontiers."[4]

The International Covenant on Civil and Political Rights (1966) echoes this in Article 19:

> *"1. Everyone shall have the right to **hold opinions without interference**.*
> *2. Everyone shall have the right to **freedom of expression**; this right shall include **freedom to seek, receive, and impart information and ideas of all kinds**, regardless of frontiers, **either orally, in writing or in print, in the form of art, or through any other media of his choice**."*[5]

Article 19, Paragraph 3 acknowledges the responsibilities and restrictions that may be placed on freedom of speech, which shall be discussed further in the lesson plan.

In Europe, we are protected by the Convention for the Protection of Human Rights and Fundamental Freedoms (1950), also called the European Convention on Human Rights for short. All the member states of the Council of Europe[6] are party to the Convention and its observance is ensured by the **European Court of Human Rights (ECHR)**, which is known for its rulings all across Europe. Article 10 of the European Convention on Human Rights states that, among other things, "1. Everyone has the right to **freedom of expression**.

1. Given the objectives of the lesson and the space available, please allow for certain generalisations and simplifications. The problem of freedom of speech in media and journalism is not touched upon in this lesson plan.
2. The term *state* should be understood as referring to any body exercising authority or public duties, or performing public service in a given country.
3. Universal Declaration of Human Rights, Paris, 1948, https://www.un.org/en/about-us/universal-declaration-of-human-rights. Accessed 27 August 2024.
4. Ibidem
5. International Covenant on Civil and Political Rights, New York, 1966, https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-civil-and-political-rights. Accessed 9 September 2024
6. The Council of Europe (CoE) is an international governmental organisation with its headquarters in Strasbourg, France. It was founded in 1949 and, as of June 2024, has 46 countries as its members. Its main objective is the promotion of democracy, human rights, and the rule of law. Not to be mistaken for the European Council (EUCO), a body within the EU that defines the Union's overall political direction and priorities.

This right shall include **freedom to hold opinions** and to **receive and impart information and ideas** without interference by public authority and regardless of frontiers."[7] Paragraph 2 touches upon duties and responsibilities, as well as possible restrictions on freedom of speech.

Another important document is the Charter of Fundamental Rights of the European Union, which, in Article 11, states that "1. Everyone has the right to freedom of expression. This right shall include freedom to hold opinions and to receive and impart information and ideas without interference by public authority and regardless of frontiers . . ."[8]

As this brief comparison of legal instruments illustrates, **freedom of speech** is a complex concept that encompasses the freedom to seek, receive, and impart ideas (including beliefs) and information, as well as the freedom to express one's opinions.[9] Freedom of speech is not limited to written or spoken words, but encompasses, among other things, images, graphics, civic initiatives, electronic information systems, and any other ways to present and express ideas. This protection not only covers the content itself but also the form of expression, as well as the means of production, communication, transmission, or distribution of information and ideas.[10]

The main role and purpose of all the provisions on freedom of speech is the protection of every individual's right to express their opinions.[11] However, this freedom is not absolute. There are limits to what can be said (online or offline), even though some – mostly those who cross those limits – believe otherwise. The boundaries of freedom of speech include protecting such interests as (to use those named in the documents mentioned above):

- national security,
- territorial integrity,
- public safety,
- prevention of disorder or crime,
- public health,
- public morals,
- the environment,
- the reputation and rights of others,[12]
- preventing the disclosure of confidential information,
- ensuring the authority and impartiality of the judiciary.

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7. European Convention for the Protection of Human Rights and Fundamental Freedoms, Rome, 1950, https://rm.coe.int/1680a2353d. Accessed 27 August 2024
8. Charter of Fundamental Rights of the European Council, https://www.europarl.europa.eu/charter/pdf/text_en.pdf. Accessed 27 August 2024.
9. Freedom to hold opinions also means the right to speak freely without interference or compulsion and the right not to speak, as well.
10. Special protection is afforded to satire as a form of artistic expression that serves to comment on social life through exaggeration, distortion, provocation, and deliberate engagement of the audience.
11. Voicing opinions shared by the majority of the society seldom runs the risk of government interference. The situation is different when people (groups and individuals) voicing the said opinions belong to a minority. This makes it very important to emphasise that freedom of speech is every person's right.
12. Reputation, along with the rights and freedoms of others, is the most commonly invoked justification by the state to shield politicians and public officials from criticism. However, in its judicial decisions (jurisprudence), the European Court of Human Rights (ECHR) grants politicians a lower degree of protection for their privacy and reputation (particularly when information about their private life is relevant to their public duties and functions) compared to other public figures. This latter category is broad, encompassing state officials, public officers, actors, athletes, and influencers, with each group afforded a different level of protection according to ECHR case-law. Ordinary individuals generally enjoy higher levels of protection. Special protection is afforded to information concerning minors. Freedom of expression can also conflict with rights other than privacy, such as religious freedom. In each case, the court must weigh which freedom warrants greater protection in the given context.

At the same time, whenever the state limits an individual's freedom of speech, courts and tribunals should apply the **three-part test** to determine whether the limitation:

- was prescribed (provided for) by the **law**;
- is **necessary** in a democratic society;
- has been instituted in order to **protect** one of the interests enumerated above.

No other criteria can justify restricting freedom of speech (restrictive provisions are always interpreted narrowly) and in any doubtful case, individual freedom must prevail over the state's asserted interest. The state must prove that all three criteria have been met and the courts must determine (taking into account the **principle of proportionality**) whether the purpose of the restriction was proportional to the limitation imposed. If the test is satisfied, state interference with freedom of speech is deemed justified.

Is vulgar speech outside the realm of freedom of speech? It is often not, as vulgar expressions can serve a stylistic function and style is part of the message, which is protected. Harsh criticism and opinions expressed in exaggerated or blunt language, and even provocative statements are also protected. However, the scope of protection is determined by the context and purpose of the critical speech.[13] Based on legal provisions and the jurisprudence of Polish and international courts and tribunals, certain expressions fall outside the protection of freedom of speech, including:

- Statements intentionally, purposefully, and directly inciting violence with a real possibility of it occurring;
- Hate speech[14] directed at various minorities;
- Denial of the Holocaust;
- References to Nazi or communist ideologies.[15]

Although the Internet and new technologies have been mentioned sparingly so far, **everything discussed here applies equally to freedom of speech online**. For instance, in 2011,[16] the ECHR started applying general principles that it had previously applied to other cases to online publications. It is important to note that access to the Internet itself is recognized as a personal right within the European human rights protection system.

The Internet, including social media, offers an accessible platform for everyone to voice opinions, share ideas, and connect quickly and easily. The anonymity offered by the web can allow, e.g., the exposure of government abuse or the critique of authoritarian regimes, which might otherwise lead to state repression. However, the ease of publishing and disseminating content online also tempts users to cross the boundaries of free speech, including spreading disinformation. Anonymity can equally be used to violate the rights and freedoms of others, such as through harassment, intimidation, or persecution.

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13. E.g. an exaggerated statement aimed at causing a sensation or garnering more clicks may not be considered protected.
14. The range of forms of expression and behaviours that constitute the concept of hate speech as developed by the Council of Europe, as well as the list of characteristics of individuals who may be the targets or subjects of hate speech, is broad. The Committee of Ministers of the Council of Europe has defined hate speech as "all forms of expression that spread, incite, promote or justify racial hatred, xenophobia, anti-Semitism or other forms of hatred based on intolerance, including: intolerance expressed through aggressive nationalism and ethnocentrism, discrimination and hostility against minorities, migrants and people of immigrant origin." Source: Appendix to Recommendation No. R (97) 20 of the Committee of Ministers of the Council of Europe, adopted on 30 October 1997.
15. According to the ECHR, freedom of expression must not be used for actions that aim to undermine the rights and freedoms enumerated in the European Convention. In such decisions, the paradox of tolerance theory is applied: absolute tolerance can lead to the tolerance of ideas that promote intolerance, which may ultimately destroy tolerance itself.
16. Ever since the case of the Editorial Board of Pravoye Delo and Shtekel v. Ukraine, 5 May 2011.

Social media companies filter the content published by users and may thereby restrict our freedom of speech online. Their methods are not transparent and often raise concerns. Social media platforms have the right to remove or block content and temporarily suspend or delete user accounts. The Internet and social media platforms still face limited regulation[17] and the effective enforcement of free speech or its boundaries online requires international cooperation and sound laws. Existing codes of conduct or community standards that users agree to when joining specific platforms lie between legal regulations and ethical norms. While they may reference international human rights documents and standards or contain assurances that they align with the **UN Guiding Principles on Business and Human Rights**,[18] everyday practice often leaves much to be desired. It is crucial to establish an effective system for filing complaints and appeals against content filtering and other rights violations by Internet giants or on their platforms, including being able to have cases reviewed by appropriate courts. Allowing Internet companies to act as arbiters of the boundaries of free speech[19] is undeniably dangerous.

In conclusion, there is no doubt that regulating freedom of speech in the online world is complex (as is the case in the offline world, since each case is different). Politicians, companies, and human rights organizations continue to debate how best to approach this and what to prioritize. However, it is essential to understand the standards and boundaries of freedom of speech in order to **responsibly** utilize the opportunities the Internet provides.

GLOSSARY

freedom of speech – the freedom to publicly express one's views and opinions, seek information, and share it with others. This freedom is not limited to written or spoken words but encompasses all ways to present information, views, and opinions, as well as expressing ideas.

principle of proportionality – principle of proportionality (prohibition of excessive interference) – involves assessing whether the means chosen to protect certain interests were the least restrictive and whether the effects of the restriction are proportionate to the limitation itself.

three-part test – a method used to assess whether a restriction on human rights and freedoms was justified. It examines three elements: 1. whether the restriction was prescribed (provided for) by law; 2. whether it was necessary in a democratic society; 3. whether it served to protect specific public or societal interests.

17. E.g. in August 2023, the European Union Digital Services Act (DSA) came into force – among other things, the regulation requires online platforms to moderate their content and explain their content moderation decisions.
18. *UN Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework*. Watch a short video on that subject: https://www.youtube.com/watch?v=BCoL6JVZHrA. Accessed 1 June 2024.
19. Founded on 6 May 2020, the Oversight Board is Meta's quasi-judiciary "Supreme Court" that decides on in-platform cases connected with freedom of speech. As the website https://www.oversightboard.com/ informs us, the body was created "to protect freedom of expression by making principled, independent decisions."

LESSON PLAN

Objectives

The students:

- understand the concept of freedom of speech (based on international human rights documents);
- recognize that freedom of speech is limited and can list the limitations;
- are able to apply the standards of freedom of speech and its limitations to the Internet;
- are able to identify references to freedom of speech and the responsibilities of online platforms in the standards or terms of service of social media.

Materials

- printed Appendixes 1 and 3, A3 or A4 format
- Appendix 2 printed in A4 format, cut up or not
- sheets of white A4 paper
- markers and pens

EXPERIENCE (15 minutes)

1. Inform the class that today's lesson will focus on the boundaries of freedom of speech on the Internet. Divide the students into small groups, e.g., four people each. Distribute the printed picture frames from Appendix 1.
2. Ask the groups to think about and write inside their frame the words, phrases, content, types of messages, and opinions that they believe can be said/written/published online. Tell the students that they can also use symbols or draw, as freedom of expression can cover images, graphics, public actions and initiatives, films, poetry, and all other ways to present information or express opinions. Encourage the groups to write in the frame only those items on which all the members agree. If there is doubt or lack of consensus, the group should write the term, phrase, or description of the message on a separate sheet.
3. Next, instruct the groups to write down outside the frame, on the margins of their paper, the words, phrases, symbols, content, and opinions that may not be published/said online. As in the previous point, if the group cannot agree on certain phrases or messages, those should be written on a separate sheet.
4. When the groups are ready, ask them to write on the borders of their frames (within the lines that make up the "boards" of the frame and that symbolize the boundaries of free speech) why they believe the expressions they placed outside of the frames must not be published/said/written online.
5. When the groups are ready, encourage them to present the results of their work (they can do it from where they are sitting, but sometimes other students may need help seeing the symbols or drawings on the poster, if any). Have each group start their presentation by saying what they put inside the frame and then what they put outside it, and finish by saying what restrictions they listed on the frame itself. If some of the groups' ideas overlap, have the students only read what has not already been read by the previous presenting teams. This way, you can gather and put together as an infographic all your collective knowledge, reflections, and intuitions about what freedom of speech online means – what fits within its limits and what does not.

Take Note!
Vulgar or insulting expressions, or, e.g., fascist symbols may end up on the worksheets, and the class may react with laughter or outrage. If you have doubts about any of the messages, symbols, opinions, descriptions, explanations, etc., make a note of it and address it during the Reflection section of the lesson, but, for now, do not interrupt the students. If they would like to discuss something or have some comments, tell them there will be time for that in a minute.

6. Finish the activity by asking the teams if they were doubtful about any phrases/ messages and were not sure where to place them on their posters. Ask the groups to read theirs aloud and put the sheets on which they wrote them on the board. Thank the students for their participation.

REFLECTION (10 minutes)

If the class reacted to the presentations with laughter, outrage, or spontaneous comments, check with them what caused those reactions and what they meant.

Ask the students the following questions:

- Did you find the activity easy or difficult?
- Which parts were difficult? Why?
- Were there any words, statements, or opinions that you were not immediately sure where to put on your posters? What were they?
- Was it easy for you to decide what restrictions to write within the border of the frame? Why?
- Do you think about the border – the boundaries of free speech – before you post something online?
- What about the content you could not agree on? Do you have any ideas about what could be done with them? (Any answer will be good here – e.g., one could post them to see what happens; one had better not post them; one should consult whether they should post them; or maybe the decision should be up to the moderators of the websites or social media platforms, or to the court.)

Encourage everybody to speak. Let everybody who has something to say be heard. Moderate the discussion.

THEORY (10 minutes)

When the students have answered your questions, summarize all the new information and everything that was said during the discussion, organize the students' knowledge, and add anything that you feel has been omitted.

Using the Overview for Educators section, go over the following points (remember to point out that the class have already said most of these things):

1. Start by explaining the relationships to which human rights apply and emphasize that the state has an obligation to protect our rights and freedoms – it cannot violate them. Human rights act as a shield, protecting us in our interactions with authority. You could explain what authority means or you can ask the group what it means to them.
2. Describe what falls under the umbrella of freedom of speech and illustrate how multifaceted this freedom is. Mention aspects such as the use of profanity or highly critical, even offensive, statements. Emphasize the fact that the context of these statements is crucial and must always be considered.
3. Emphasize that the space for freedom of speech should be as broad as possible, with the state intervening as little and as infrequently as possible. Freedom of speech is fundamental for democratic societies. It is also essential for safeguarding other human rights and freedoms. However, it can sometimes come into conflict with them.
4. Discuss the limits of freedom of speech (refer to the boundaries identified by the group in their posters; even if these are not worded exactly as they are in the legal texts, the essence of the boundaries was probably captured). Emphasize that, although many people believe they can say or write anything online or offline, this is not the case. The limits are defined by laws, which are interpreted by the relevant courts or tribunals in specific cases.
5. Address any doubts the groups had about certain statements – whether or not they can be published. Similar dilemmas are often faced by chat or platform moderators, as well as courts and tribunals. If the state interferes with freedom of speech, it must prove that it had a strong legal basis and that the restriction was necessary in a democratic society to protect one of the interests that limit this freedom (the three-part test). The legal standard is that in any doubtful case, individual freedom must outweigh the overriding interest cited by the state.
6. Explain what falls outside the protection of freedom of speech (content outside the frame).
7. Finally, highlight the challenges to freedom of speech posed by large online platforms, but also point out that there are references to international human rights documents and corporate responsibilities (such as the UN Guiding Principles on Business and Human Rights) in the standards and terms of service we accept.
8. Ask if everything is clear and if there are any questions. Emphasize how much the groups got right (how many aspects of freedom of speech they identified) during the first part of the lesson.

PRACTICE (10 minutes)

The practice section contains two variants of the exercise. If you choose:

- option 1, leave the boundaries of freedom of speech displayed on the board;
- option 2, prepare to play a short video on the UN Guiding Principles on Business and Human Rights, which can be found here: https://www.youtube.com/watch?v=BCoL6JVZHrA.

OPTION 1

1. Hand each group one or two case studies concerning freedom of speech on the Internet (find them in Appendix 2; note: these are real stories adapted for the exercise) and ask the students to step into the role of judges who need to assess the validity of state interference with this freedom. Ask the groups to consider which protected interest or good the state might have invoked and what they believe was more important in that situation – the individual's freedom of speech or the overriding interest cited by the state? Why did the students make the decisions they did? They can write down their conclusions, but it is not mandatory. The goal is to see if they understood the concept of freedom of speech and the mechanism of its limitations.
2. Listen to the groups' responses. Pay attention to whether they correctly identify the potential limits of freedom of speech and what arguments they present for or against recognizing the restrictions (hint: in both cases, the state infringed on freedom of expression).
3. Finally, thank the class and show them the Loesje poster, which you can find in Appendix 3. Print the poster and put it up in a visible place in the classroom.

OPTION 2



Tip

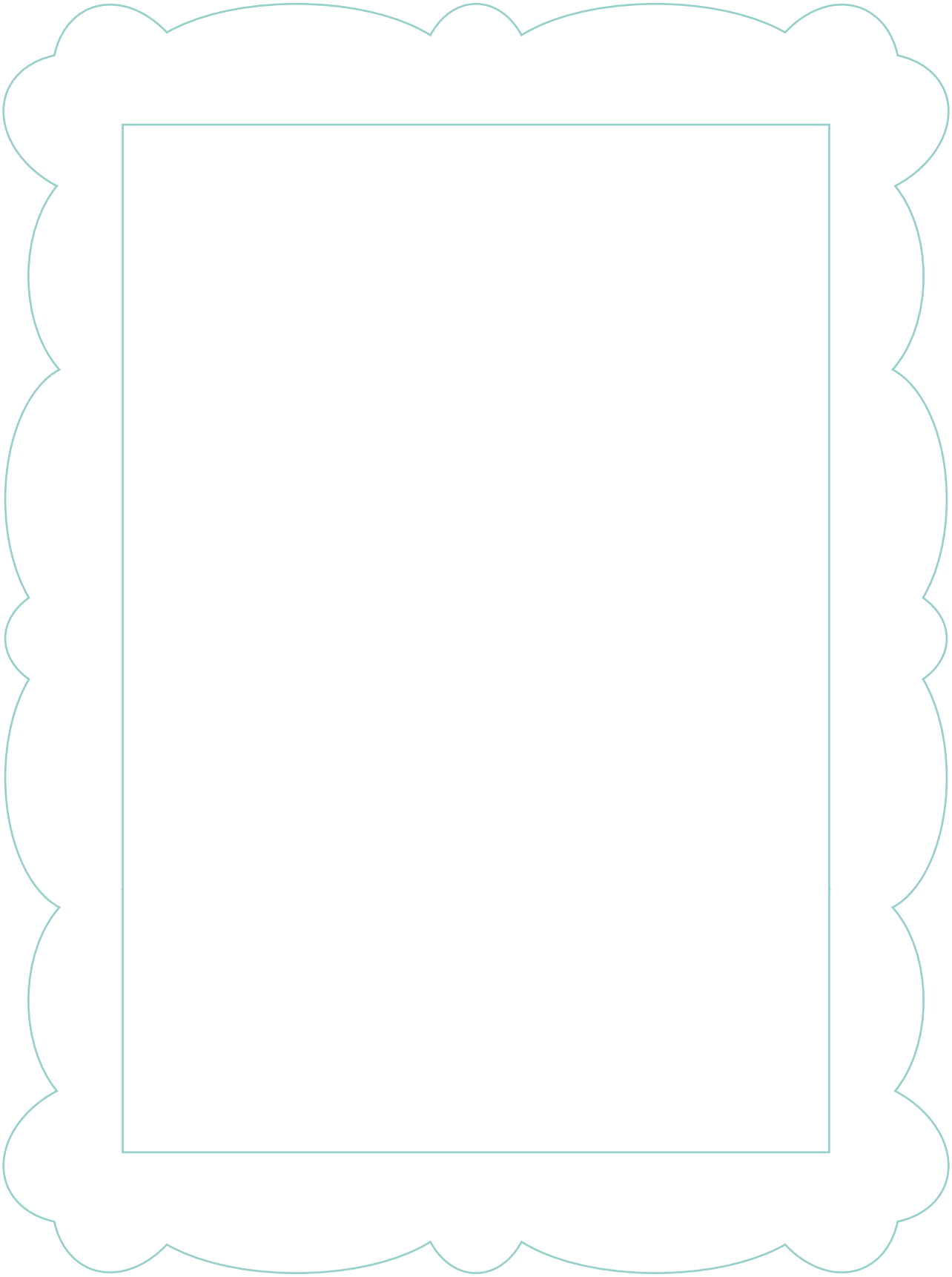
For the practical part of this activity, the class must have access to phones or computers with Internet access, and you should be able to play them a video (the video is optional but might be engaging for the students).

1. Play the video about the UN Guiding Principles on Business and Human Rights. The video is 3 minutes and 30 seconds long – check you have time to play it during this lesson.
2. Explain that online platforms often refer to human rights and freedoms, international documents related to them, or the UN guidelines, which highlight the corporate responsibility for protecting individual rights and freedoms in their standards and terms of service.
3. Ask the students, in the groups they have been working with, to search platforms like *Facebook*, *Instagram*, *TikTok*, or *X/Twitter* (you can allow them to choose or assign each group a platform) for references to freedom of speech standards and its protection, as well as the UN Guiding Principles on Business and Human Rights. Give them only 3–4 minutes for this task.
4. Ask if the task was easy, i.e., if it was easy to find these references. What could that indicate?

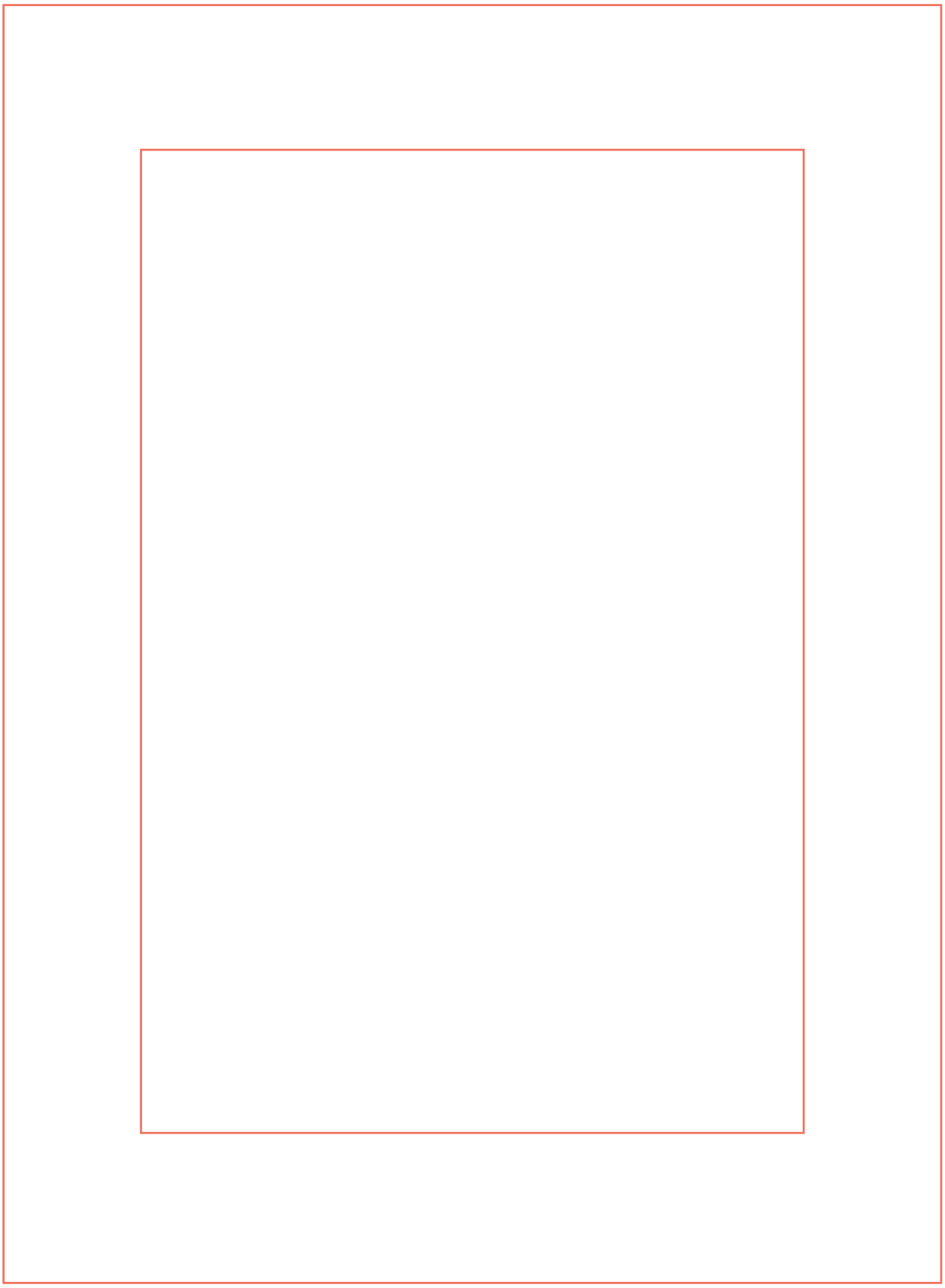
Take Note!

It may turn out that this task is not easy and that the references are scattered across various places, making it difficult to understand the platform's guidelines on freedom of speech.

Finally, thank the class and show them the Loesje poster, which you can find in Appendix 3. Print the poster and put it up in a visible place in the classroom.



Appendix 1



Appendix 2

Case 1

After the media published reports about push-backs happening at the border (i.e., forcibly returning migrants to the country they crossed from without allowing them to apply for refugee status or asylum, and without considering their individual circumstances), an 18-year-old high school student from W. was deeply affected by the situation. He posted the following comment on a popular online platform: **"Are you f***ing kidding me?! These are the border guards??? They're machines without hearts, without brains, without ANYTHING, blindly following orders!!!!! How is this possible!!!!!! I'm shaking with rage and helplessness!!!!!! Murderers!!!!! Criminals!!! Who the hell allows this, who allows them to behave this way??????"** The post went viral.

The W. Prosecutor's Office decided to pursue criminal charges against the student (under the penal code), claiming that by using mass communication on a social media platform, he defamed the border guard service and its officers, thereby damaging their reputation.

Evaluate the situation. Was it within the student's rights to post this comment online? Why? What public good or interest did the state authorities cite in their attempt to restrict the individual's freedom of speech (by attempting to prosecute the student)? Was the state's interference justified? Why?

Case 2

A well-known youth vlogger gave an interview to the online edition of a national newspaper in which, when asked about faith, she stated that in her opinion, "the biblical narrative has some value, but the facts presented in it are not supported by scientific discoveries." She went on to say that she finds those discoveries more convincing than "something written by some wine-drunk guy smoking herbs." After the interview was published, two individuals, C.D. and E.F., filed a complaint with the prosecutor's office, alleging that the vlogger had committed the crime of insulting religious feelings by defaming an object of their religious worship (the Bible). The interview received a record number of views online.

The vlogger claimed she had not intended to offend anyone and that she respects everyone's religious beliefs. She argued that the interview should not be taken seriously as she gave it in a humorous and light-hearted manner, using the metaphorical language typical of young people, which is simply her style of communication. The journalist who conducted the interview said that her remarks were "spontaneous" but also "deliberately aimed at shocking the audience," "gaining media attention," and attracting public interest and followers. The vlogger had not engaged in any public debate on religion before or after the interview.

The prosecutor's office charged her with insulting religious feelings by defaming an object of religious worship under the penal code and the constitution, thereby concluding that she had exceeded the limits of free speech.

Evaluate the situation. Could the vlogger express herself in this way online? Why? What public good or interest did the state authorities cite in their attempt to restrict the individual's freedom of speech (by attempting to prosecute her)? Was the state's interference justified? Why?

Appendix 3

Loesje Poster

Download it from: https://www.loesje.org/files/posters/INTen1011_1.pdf. Accessed 27 August 2024.

P.O. Box 910138 12413 Berlin Germany loesje@loesje.org www.loesje.org

HOW MUCH FREEDOM OF SPEECH CAN A DEMOCRACY TOLERATE

Loesje

Me in Relationships with Others

5. How to Deal with Online Aggression

OVERVIEW FOR EDUCATORS

Aggression ("spoken or physical behavior that is threatening or involves harm to someone or something")[1] that we encounter online is known as cyber-aggression or cyberbullying (sometimes also cyberharassment or online bullying). It can take many forms, including bullying behavior, **hate speech, exclusion, harassment, flaming, sextortion, identity theft**, the **public disclosure of secrets, humiliation**, and **happy slapping** (definitions of these terms are provided in the glossary below).

When it comes to working with young people, the most serious type of online aggression is **peer aggression**, which means that both the person experiencing it and the perpetrator are children or adolescents. However, this is not the only form of aggression involving students. Other examples include hate speech or insulting celebrities.

Aggression is characterized by the weaker position of the person experiencing the aggression. The aggressor holds an advantage and is stronger, while the recipient of aggressive behavior often does not know how to defend themselves effectively (which highlights the imbalance of power). This can be a single incident or continuous or repeated behavior. It may be anonymous, although people who experience aggression often know exactly who is behind it and the aggressor may not attempt to hide their identity. Aggression can be a deliberate, intentional act, but it is often the result of unintentional actions (for example, someone sends something they find funny to another person, intending it as a joke, but that person perceives it as harmful or an act of aggression).

The nature of the Internet means that the recipient of aggressive behavior cannot escape the aggressor or their actions, as the web operates 24/7, even when they are not using it. Online aggression often overlaps with offline aggression. It can happen that a person who experiences or perpetrates aggression online does so because offline, in real life, they might experience or witness it themselves or feel the need to act out because of their circumstances. The causes of online aggression can lie in the offline world and vice versa.

Liking and sharing harmful content can seemingly amplify the scale of such behavior, even when only one person is being aggressive. This is why it is important, when working on this problem with students, to focus not only on the aggressor or the person who experienced aggression but also on the witnesses.

Causes and Effects of Online Aggression

The causes of online aggression are varied. They include exclusion from a peer group, loneliness, anger, a desire for revenge, family situations, poor relationships with parents, school problems, depression, emotional issues, the fact that others engage in aggression (both of-

1. Based on the definitions in the Cambridge Dictionary: https://dictionary.cambridge.org/dictionary/english/aggression. Accessed 27 August 2024.

fline and online), bad moods, failure in some area of life, difficulties in building relationships, etc.

Among the most serious effects of aggression and the ones most commonly mentioned are self-harm, depression, and suicide. Most causes can also be effects and vice versa. This even applies to an irreversible consequence like suicide – the death of one person can become a cause of aggression toward others (for example, those who are, rightly or wrongly, blamed for the event). This interchangeability and the role-swapping that children and adolescents can experience in situations of aggression (discussed further below) demonstrate that responding to violence with violence is not a solution and can trigger a snowball effect that is difficult to stop.

It is crucial to understand that the way in which a behavior is perceived by its recipient depends on them and on a range of factors over which they have little or no control (mental health, home situation, etc.). It does not, however, depend on the intentions of the person initiating the behavior (e.g., by sending a message). What might be a joke to one person, or something easily shrugged off by another, could be the last straw for someone else. This applies even to seemingly trivial and insignificant events. It may, however, be difficult to realize this, especially while using the Internet, mostly because of two peculiarities of human psychology – the **cockpit effect** and the **disinhibition effect**.

Roles in Aggression

In cases of online aggression, children and adolescents can play one of three roles: the person experiencing aggression (the recipient), the person initiating it (the aggressor), and the witness. It is important to use these terms. Other commonly used terms such as victim and *perpetrator* are stigmatizing. Since language shapes reality, such words make it harder for people to escape the roles they have been assigned.

In situations of aggression, these roles are not always clear. By responding to aggression, the person who experiences it can become an aggressor. By sharing harmful content online, witnesses can, in a sense, become aggressors themselves – what else is leaving a like under an insulting video or sharing it on one's profile if not complicity?

Responding to Online Aggression

Responses to aggression should be considered separately for each role (the person experiencing the aggression, the person initiating it, and the witness).

The role of witnesses is crucial in situations of aggression. Their actions or inactions can contribute to either the escalation or de-escalation and resolution of violence. Witnesses can provide public support, including confronting the person who initiated the aggression. Public condemnation of certain behaviors, especially when supported by others, can stop aggression (although this is not always the case, as it depends on how it is done, and on the personality and position of the aggressor). Not every witness has the courage or readiness to respond. It is important, however, that witnesses do respond when aggression is happening, and respond in a way that they are ready and able to.

A lack of reaction from those around can lead to feelings of loneliness in the people experiencing the aggression, especially if the witnesses are within their circle of friends ("How is it that so many people, so many of my friends, see this and no one reacts, no one supports me?").

There are many ways to offer support. Often overlooked or undervalued as potential responses, simple actions like sending a message saying "I'm with you," asking how one can help, stating "I don't agree with this" or "This can't be allowed" (even when not feeling strong enough to confront the person initiating the aggressive behavior), proposing to think together about what to do, offering a hug, and similar gestures can be crucial for the health and life of the victim.

Support can also include informing others, including adults, about what happened or is happening, and seeking help. Children and adolescents often see this as betrayal, tattling, or weakness, but it is an act of courage that should be encouraged. It is important to discuss this with young people and to encourage them to think in advance about who – in school, at home, or among their peers – they can always turn to for help in case of trouble online.

For both witnesses and recipients of online violence, reporting the violation of the platform's rules where the aggression occurred, as well as reporting it to law enforcement, can be effective responses. The person experiencing aggression can also delete the aggressive post (it is a good idea to take a screenshot first) and block the aggressor on their social media.

While witnesses should always find a way to respond (including safe, non-confrontational responses), the victim might not feel like responding, might lack the strength to do so, might not see any options for action, might feel helpless, etc. Paradoxically, not responding and not engaging in dialogue with the person initiating aggression can be effective. If the aggressor's goal is to provoke anger in the recipient (their target), the lack of the desired reaction might lead them to stop. However, it has to be a true lack of reaction. Replying, "I won't talk to you," is already a form of response, which children and adolescents often forget.

The person who experienced aggression might also want to confront the person who initiated it. It is important that they do so without using aggression themselves. Face-to-face confrontation offline (it is worth considering doing this with someone's support), making the aggressor aware that the other side is a flesh-and-blood person and showing and explaining the emotions and harm they have experienced, can help the aggressor cease their actions. Because it is not easy to break out of the role perceived by one's environment, shedding the label of "aggressor" is difficult. It is important to act in a way that leaves space for a change in behavior (e.g., addressing the issue face-to-face rather than in front of a group). However, it is important to remember that while confrontation is a significant effort, it doesn't always bring the desired result.

GLOSSARY

cockpit effect — a phenomenon whereby the person using violence does not see the recipient of their aggressive behavior (or does not see the entirety of them – e.g., they miss non-verbal signals) and is therefore unable to assess their reaction.

cyberbullying — online aggression, coercion, or harassment (bullying) aimed at other Internet users.

disinhibition effect	a phenomenon that makes us braver and more impulsive online than we are in real life. It occurs because the elements of social control that prevent certain behaviors and reactions in direct face-to-face communication do not function as well online, or do not function at all.
exclusion	omitting someone when forming groups, not building relationships in online communication, or only establishing brief, superficial connections.
flaming	intentional heating up of online discussions and posting insults.
happy slapping	an assault on someone that is either recorded and later published online or streamed live.
hate speech	„shall be understood as covering all forms of expression that spread, incite, promote or justify racial hatred, xenophobia, anti-Semitism or other forms of hatred based on intolerance, including: intolerance expressed through aggressive nationalism and ethnocentrism, discrimination and hostility against minorities, migrants and people of immigrant origin." "'[R]acist and xenophobic material' means any written material, any image or any other representation of ideas or theories that advocates, promotes or incites hatred, discrimination or violence against any individual or group of individuals, based on race, color, descent or national or ethnic origin, as well as religion if used as a pretext for any of these factors."[2]
peer aggression	(sometimes also *peer-to-peer aggression* or *peer-on-peer aggression*) – said to occur when the person experiencing aggression and the person using violence (initiating aggressive behavior) are both children or adolescents (peers).
sextortion	obtaining intimate content (often of a sexual nature) from someone in order to coerce that person into sharing more such content, or to blackmail them and demand money in return for not disseminating the sensitive private materials.
whistleblower	a person who reports aggression to the authorities, seeking to help themselves or others.

LESSON PLAN

Objectives

The students:

- understand what online aggression is;
- know what emotions are associated with online aggression;

2. Quote 1: Recommendation No. R (97) 20 of the Committee of Ministers to Member States on "hate speech" adopted on 30 October 1997; quote 2: Additional Protocol to the Convention on Cybercrime, concerning the criminalisation of acts of a racist and xenophobic nature committed through computer systems.

- are able to look for and identify its causes and effects, and understand the relationship between cause and effect and the ways of responding to aggression;
- are aware of their own agency in taking action against aggression (including online aggression) and realize that whistleblowing is a brave and commendable practice.

Materials

- printed worksheets and case studies (Appendixes 1–3, depending on which lesson variant you choose)

OPTION 1

EXPERIENCE (15 minutes)

Inform the class that you will be discussing cyberbullying and online aggression.



Tip

Students might not initially respond well to this topic. You might hear groans of disappointment or boredom, which could mean "Here we go again with another lecture." To counter this, it is important to emphasize that this will not be just another generic lesson. Today, you are inviting them to engage in a conversation based on their own experiences, particularly with what they have encountered online, and to reflect on how to handle certain situations. The more they get involved, the more interesting the lesson will be. Your role is mainly to propose a framework and provide tools for the discussion.

Divide the class into groups of four or five students. Hand out the worksheets with the tree of causes and effects (Appendix 1). Explain what the trunk, roots, and branches of the tree symbolize. Ask the groups to fill out the worksheets by answering the questions provided.



Tip

You can ask the groups to start by filling out the "trunk" section first. Then, together, add any forms of aggression that the students failed to mention. While not essential, this collective effort might help some students recognize that certain behaviors online are actually forms of aggression. If you skip this step, the groups will likely focus on the forms of aggression they are already familiar with (the ones they thought of themselves).

Next, ask the groups to fill in the rest of their worksheets. They can either think broadly about online aggression (covering all the listed forms) or focus on one or a few specific types (based on a classification you agree upon).

REFLECTION (5 minutes)

Ask the students the following questions:

- How did you like the activity?
- What, out of the things you have written, made you stop and think?
- Have you discovered anything? What?

Invite the groups to put their worksheets up on a wall – preferably next to each other on a single wall, so that they can be easily compared.

- What can you see here?
- What causes and effects of aggression, as well as needs and emotions, have appeared in your answers?

If some answers appear in more than one worksheet, you can circle them with a marker.

Next, ask the students to turn their trees upside down. Ask:

- What happened?
- What can you see here?



Tip

By turning their trees upside down, the students should be able to realize that most, if not all, causes of aggression can also be its effects, and vice versa. This should make them aware that responding to aggression with aggression is not a solution, as it can trigger a snowball effect.

THEORY (15 minutes)

Using the Overview for Educators section, emphasize that the causes and effects of online aggression are varied, and some can be very serious. What may seem like harmless behavior to the person engaging in it can have dangerous consequences. The cockpit effect can cause the aggressor to overlook the suffering of the person experiencing the violence, thereby increasing the level of risk.

Often, the causes of online aggression can also be its effects and vice versa (as the class will have seen while working on the tree of causes and effects). Even something as severe as suicide can be both a result of aggression and a cause of further aggression, such as toward those blamed for someone's death. This is why responding to violence with more violence only perpetuates a vicious cycle. Over time, it becomes difficult to distinguish between the aggrieved and the aggressor as their roles often switch. Share what can be done about online violence when encountering it in different roles – as a witness, as a person experiencing it, or as an aggressor. Discuss the importance of the role of witnesses.

You can conduct the final part of this section entirely as a dialogue with the class. It is important to make it clear that one does not need to be a hero to respond to aggression. Confrontation with the person using violence is not always necessary. Supporting the recipient of aggressive behavior is also a response, often a crucial one, as it shows them they are not alone. This support can lead to finding other solutions together. Emphasize that asking for help from others (including adults, such as teachers or the police) and being a whistleblower is an act of courage, not cowardice, weakness, or tattling. Conclude by stating that young people are not powerless against aggression – they can stand up to it, especially when working together.

PRACTICE (10 minutes)

VARIANT A

If you have less time than planned, ask the class what new strategies for dealing with aggression against themselves and others they are taking away from this lesson.

VARIANT B

If time permits, divide the students into new groups or return to the previous ones and distribute selected example scenarios (one or more) from Appendix 2. Ask the groups what they would do if they found themselves in those situations.



Tip

Choose scenarios that students are likely to encounter, and if there are many, focus on those that might be most challenging for them. You can opt to discuss one case in detail in groups or as a class. Remember to consider the different roles one might find themselves in: the witness, the person experiencing aggression, and the aggressor.

OPTION 2

EXPERIENCE (15 minutes)

Inform the students that today's discussion will focus on online aggression.

Divide the class into groups and distribute selected case studies (Appendix 2). Ask the students how they would react in the described situations as the person experiencing aggression, as the aggressor, and as a witness. Ask them to record their answers on the *triangle of aggression* (Appendix 3), noting the number of the scenario (case) they are working on.



Tips

Select the scenarios that students are likely to encounter, and if there are many, choose those that may be most challenging for them. You can also pick one case and discuss it thoroughly, then broadly address the concept of aggression or other situations (the cases not chosen).

In this variant, you can divide the class into three groups, where the first group explores solutions from the perspective of the person experiencing aggression, the second from the perspective of the aggressor, and the third from the perspective of the witness.

You can also use the scenarios as examples to help the class better understand what aggression is and invite the students to brainstorm ways to respond to any form of online violence.

Young people often find it challenging to think from the perspective of the aggressor. Explain that they can consider two possibilities – one where the person wants to continue the aggression and one where they want to stop. What can they do in either case and how might they behave?

REFLECTION (10 minutes)

Ask the students:

- How did you like the activity?
- What did you discover while working on your scenarios?
- What made you stop and think?

Ask them to read the case studies (scenario descriptions) and share the responses they recorded for the different roles. You can note their answers collectively on the board or flipchart, which will allow you to create a list of responses to aggression.



Tip
When writing down the responses, remember to assign them to their appropriate roles: the witness, the person experiencing aggression, and the aggressor.

THEORY (10 minutes)

Congratulate the class on finding so many solutions. Based on expert articles or the Overview for Educators section, fill in any gaps in their responses with strategies and options that they did not mention. Comment on the ideas brought up – reinforce those that could effectively end violence and encourage reflection on those that may not. Explain especially why responding to aggression with more aggression is not a good solution. Highlight suggestions to seek help from others, particularly adults. Emphasize that seeking help and being a whistleblower is an act of courage, not cowardice or tattling. Also, note that responding to aggression does not necessarily mean confronting the aggressor – it is only natural that not everyone is always ready for this. Often, the most important action we can take is supporting the person experiencing violence.

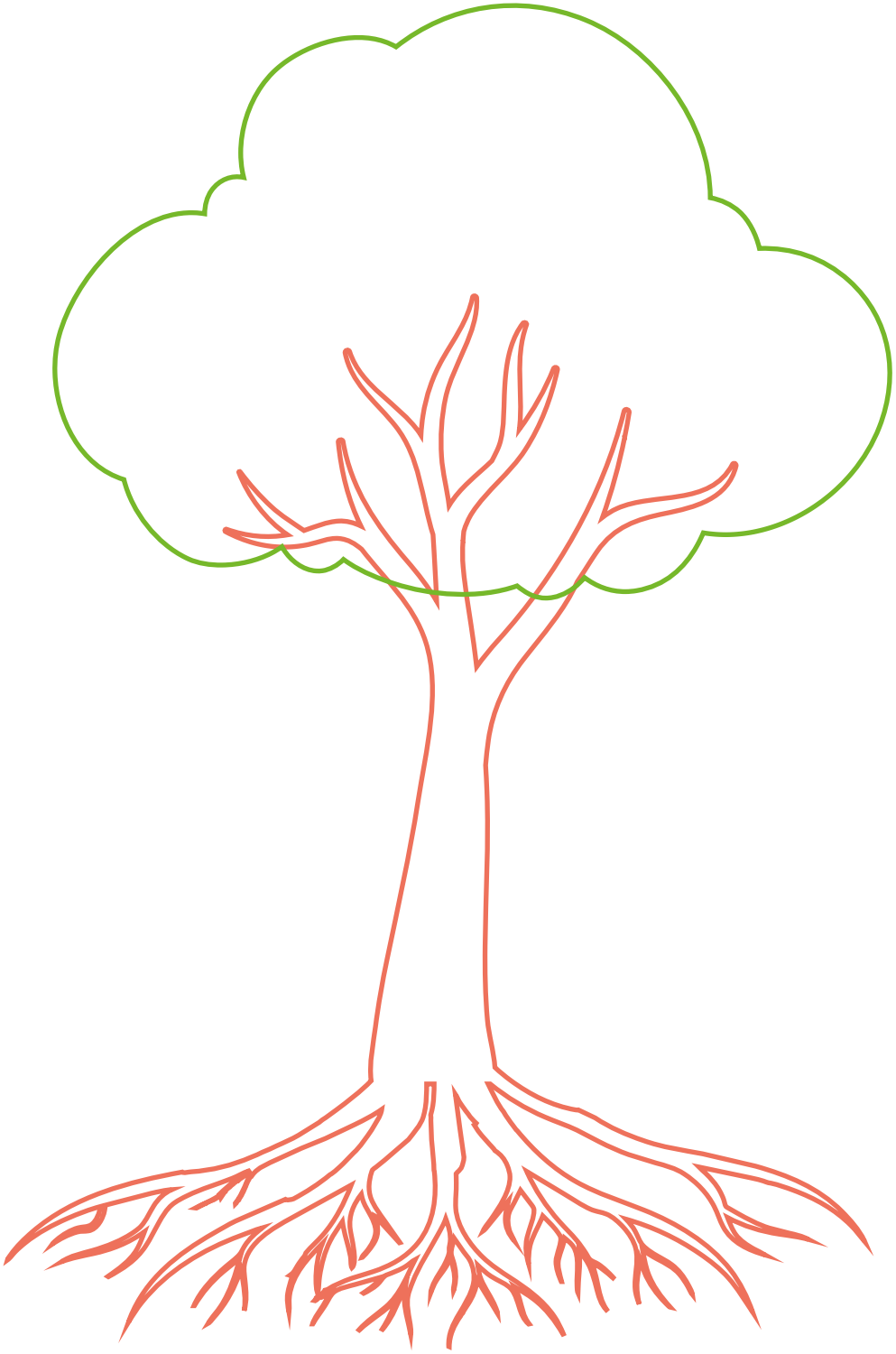


Tip
If time permits, you can use the tree of causes and effects described in variant 1 of the lesson plan (Appendix 1) to explain why responding to aggression with more aggression is not a good solution.

PRACTICE (10 minutes)

Invite the students to return to their worksheets and add any possible solutions they had not previously mentioned, and cross out those that, after reflection and discussion, they deem ineffective responses to aggression, i.e., those that will not stop it.

The Tree of Causes and Effects. Online Aggression. Bullying and Hate Speech
The tree of causes – the tree of effects



THE CROWN
→ THE EFFECTS

- What does/could the victim feel?
- What can they do?

THE TRUNK
→ THE FORMS

- What does bullying look like?

THE ROOTS
→ THE CAUSES

- Why do some people hate and bully others?

Appendix 2

Below, you will find several scenarios, descriptions of situations in which young people may encounter online aggression – in different roles. You do not need to name the forms of aggression when handing out the scenarios.

EXCLUSION

Scenario 1

Adam is the only person not to have been invited to join the class group chat in a messaging app.

HAPPY SLAPPING (RECORDED ASSAULT AND BATTERY)

Scenario 2

Yesterday, somebody tripped Joanna and dragged her through a puddle by her jacket. The assault was recorded and uploaded to the Internet.

FLAMING (AN INSULT WAR)

Scenario 3

Martina insulted Mark online wherever she could because he had a hole in his sweater yesterday. Mark didn't let it go unanswered.

SEXTORTION

Scenario 4

Maya threatened Andy, a student in a lower grade, that if he didn't send her a nude photo, she would post pictures online of him changing clothes during a school trip.

Appendix 2

Below, you will find several scenarios, descriptions of situations in which young people may encounter online aggression – in different roles. You do not need to name the forms of aggression when handing out the scenarios.

DISCLOSURE OF SECRETS

Scenario 5

Matthew told everybody that Johnny had fallen in love with Mike, a schoolmate from a parallel class.

STALKING

Scenario 6

Joanna is relentlessly bothering Amelia. She stalks her online, showing up wherever Amelia is active and portraying her in a bad light whenever possible.

IDENTITY THEFT

Scenario 7

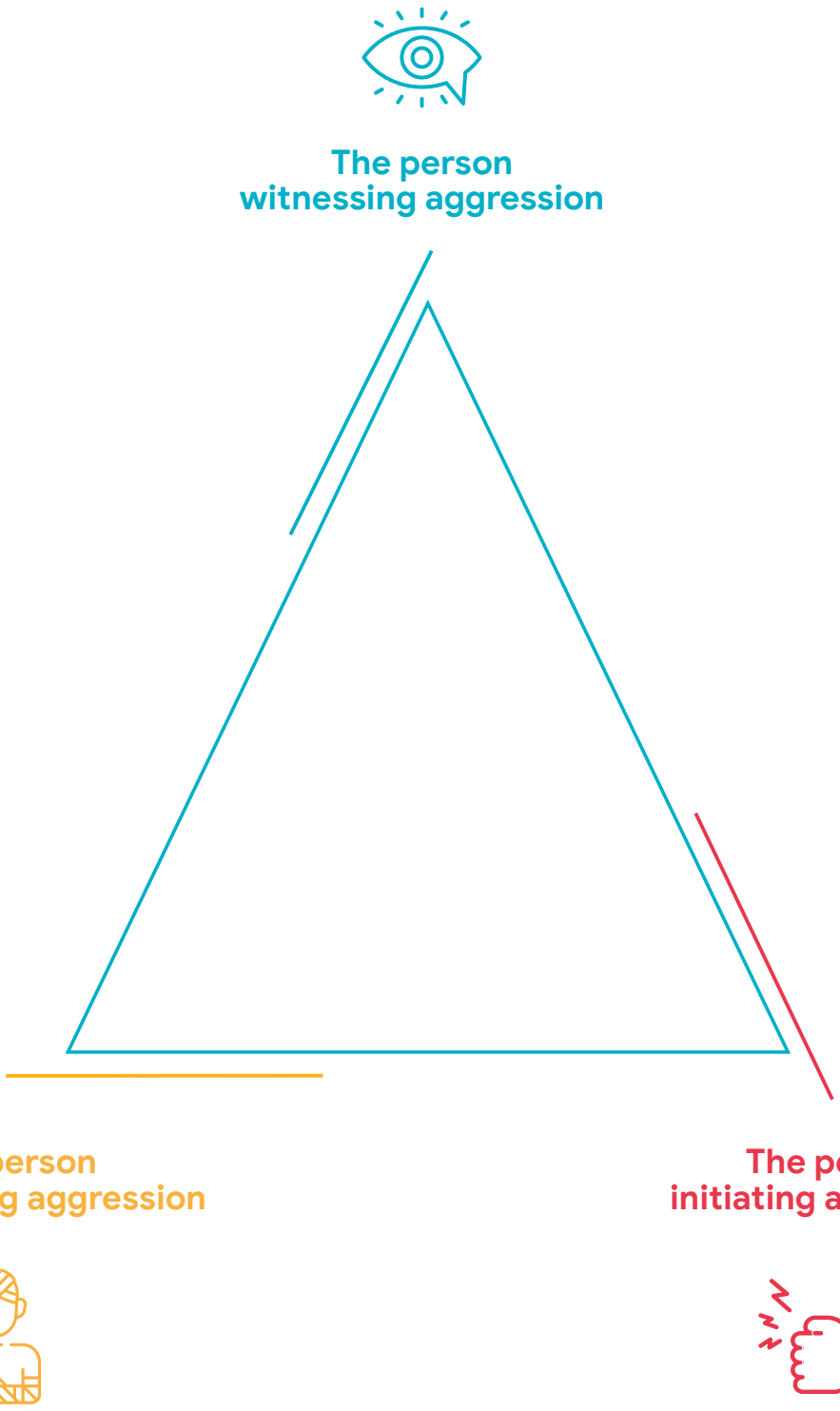
Ella stole Conrad's social media password. It turned out to work on several accounts. Now, she is impersonating him and posting as him.

BULLYING AND HATE SPEECH

Scenario 8

Robert insulted Irina using hate speech. Not only did he use profanities, but he also targeted her nationality.

The triangle of aggression



6. Consent and Sexting

OVERVIEW FOR EDUCATORS

Sexting, a portmanteau of "sex" and "texting" (as in, instant messaging), is a phenomenon whereby people share intimate (or suggestive) photos, videos, and messages. Anyone, regardless of their age, can engage in sexting but, because of the growing popularity of sexting among young people, it is worth examining the complexities of this phenomenon.

Sexting may, for instance, help maintain long-distance relationships or spice up sex lives. Without a doubt, though, this form of intimacy will not work for everyone. **No one should participate in it against their will. It is crucial that all the parties involved consent to it.** Sexting can easily get out of control, and when practiced without consent, it becomes an abusive behavior. Sexting by individuals under 18 may be considered child pornography, and its creation and distribution are prohibited by law. Young people may not consider the legal, ethical, and psychosocial consequences of such actions.

It is important to educate adolescents on how to resist peer pressure and assert themselves. As adults, we should help them recognize healthy and functional relationships, and show them that they should not be forced into doing something they do not feel comfortable or safe with.

However, it is worth bearing in mind that young people are unlikely to completely give up this form of activity. This is a rather utopian vision. Following the harm reduction strategy, we can focus on eliminating or minimizing the negative consequences of sexting. We can point out the potential consequences and, at the same time, provide guidelines on how to engage in it with reduced risk. **Safe (or safer) sexting** (as safe as it can be – it will never be 100% safe!), involves adhering to several basic principles such as clearly defined boundaries, consent, honesty, transparency, and mindfulness.

Interesting Facts About Sexting[1]

- Every other high school student confirms that they have received content with someone's nude image.
- Parents are largely unaware of the phenomenon. Only 5.6% of parents report that their children have received nude photos via the internet, while one-third of teenagers say they have received such files.
- There is no difference in sexting behaviors between girls and boys.

1. Based on the *Nastolatki 3.0 (Teenagers 3.0)* report by the NASK National Research Institute.

GLOSSARY

consent — agreement to the proposal or desires of another (e.g., sexual activity) that is clearly expressed, voluntary, enthusiastic, and given soberly (by a person free and able to choose). It must be given by all parties involved in the subject matter. Consent cannot be implied; it must be explicitly stated. In a sexual context, silence or lack of response does not mean consent to sexual activity. Consent is not permanent and is required for each individual sexual activity – once given, it does not have to apply to everything (i.e., all subsequent activities) and it can be withdrawn at any time.

harm reduction (harm minimization) — a strategy that assumes people will engage in risky behaviors and focuses on reducing the negative effects of those. This is the opposite of the abstinence strategy. Education in harm reduction doesn't only involve describing dangers and attempting to prevent immature or unwise decisions but also ensuring that even after making a poor choice, there is still a possibility of managing the situation effectively.

LESSON PLAN

Objectives

The students:

- know what *sexting* is;
- understand what consent means;
- know how to be assertive and how to deal with peer pressure;
- realize that sexting is not for everybody and that it requires consent;
- are aware of the possible dangers and negative consequences associated with sexting.

Materials

- a projector and a computer with Internet access
- printed posters and scenarios (Appendixes 1 & 2)
- sticky notes
- a ball (preferably a footbag or some other soft ball) to be used during exercise 2



Tip

Before the lesson, print the posters from Appendix 2 and put them up on the board or somewhere else where they will be easy to see, and prepare the sticky notes.

EXPERIENCE (15 minutes)

1. Begin the lesson by introducing the central concept:

"During today's lesson, we will focus on understanding what consent truly means. It might seem like an abstract concept since we do not always think about it explicitly, but we actually rely on it a lot in our daily lives. We agree to things, we seek others' consent, or we may refuse to give consent when something doesn't feel right to us."

2. Ask the students to look at the posters put up on the board. These posters have incomplete sentences related to consent. Encourage your students to take a moment to think about how they would complete these sentences based on their everyday experiences. Ask them to recall situations where they needed someone's consent, where they asked for it, or when someone did something without their consent or despite them withholding it. Distribute sticky notes to each student. Have them write down their responses and then stick the notes under the appropriate posters.



Tip

To help the students engage with this exercise, consider prompting them with additional questions:

- **CONSENT MEANS...**

What does it mean to you? What is the first thing that comes to mind when you think of this word? (For example, permission, or the ability to do something with someone's approval.)

- **I NEED TO GET CONSENT WHEN...**

In what situations do you need consent? What do you need to ask for? (For example, borrowing a sibling's dress, staying over at a friend's house, or needing parental consent.)

- **THESE ARE NOT CONSENT:**

What actions or behaviors cannot be considered consent? (For example, if someone does not say yes or no, silence or a lack of response.)

- **I KNOW I HAVE SOMEONE'S CONSENT WHEN...**

What should someone say, write, or do to make you sure they're giving consent? (For example, nodding, giving a thumbs-up, liking a post or message or using a similar reaction, saying "OK" or explicitly saying "Yes, I agree.")

3. If you notice that the students' answers are repetitive or cover similar aspects, **you can group them together**. Due to time constraints, you may not be able to read all of them, so select a few that stand out or **summarize the key points**.

   Ask the students how they felt about this exercise. Did any new thoughts come to mind? Did the exercise remind them of something or help them understand consent better?

4. Together, watch the video on sexting produced by the UK Safer Internet Center – Childnet International. **Start the video at 2:39**. If you have more than one class period for this lesson, you can watch the entire video: https://www.youtube.com/watch?v=C-7z6lMbL3mw&ab_channel=StreetwiseGB

REFLECTION (10 minutes)

After watching the video, discuss it with the class. You can use all or some of the following questions to guide the conversation:

- What did you think of the video?
- Do you think a similar situation could happen at our school? Why or why not?
- Abi hesitated before sending the photo. In the end, what made her decide to send it?
- What motivated Josh to ask Abi for the photo?
- Did Abi give consent for her photo to be seen by others or shared further?
- How do you view Abi's friends' advice? What did they suggest when she asked for advice? What would you advise a friend who asked whether to send a semi-nude photo to their partner?
- One of Abi's friends said that sending semi-nude photos to her boyfriend is a way to keep him happy. Do you agree with this? Is this really how we should keep our partners happy?
- What kind of comments appeared online after Abi's photo was shared?
- What could Abi have said to her boyfriend if she did not want to send the photo or was unsure about it?

THEORY (10 minutes)

Ask the students if they know what the behavior (practice) depicted in the video is called. Wait for their responses and then explain what sexting is. You can use the definition provided in the Overview for Educators section at the beginning of this lesson plan. Make sure to mention that sexting is a sexual activity and that, like any other sexual activity, it requires the consent of all parties involved. Add that engaging in sexting is never 100% safe, just like sex itself. However, the concept of safe sex (safer/protected sex) exists, as there are precautions that can and should be taken. Similar risk reduction strategies apply to sexting. If you decide to engage in this form of enhancing your relationship with someone, it is important to maintain caution and remember a few safety guidelines. Present the key principles of safer sexting to the class.

PRACTICE (Variant 1 – 10 minutes/variant 2 – 45 minutes)

OPTION I – SIMPLER VARIANT (10 MINUTES)

Go back to the concept of consent. Ask the students if they would like to add anything to the list of ideas from the earlier exercise, this time specifically in the context of sexting or other sexual activities. Encourage them to add more sticky notes under the posters or have a class-wide discussion.

It is crucial to emphasize that when it comes to engaging in sexual activities (including sexting), consciously given consent is essential. It is only valid if it is not influenced by pressure, blackmail, hierarchy, or dependency between the individuals involved (i.e., coerced). A person giving consent must not be under the influence of alcohol or drugs, and their condition should not suggest that they may not be fully aware of their decisions.

Have the students write down three things they learned during the lesson, two things they already knew, and one question they still have. This will serve as feedback for you and indicate whether certain topics need to be explored further.



Tip
If you plan to implement the extended version of this lesson (option 2, the more advanced variant) in the next class, you can postpone the summary until the end of the entire lesson series.

OPTION 2 – MORE ADVANCED VARIANT (REQUIRES ANOTHER CLASS PERIOD – 45 MINUTES)

If you can dedicate more time to the topic of sexting, conduct an exercise during which your students will practice assertiveness. You will need a circle of chairs for this activity.

If this is your second lesson on the subject, start by briefly recapping what was discussed in the previous lesson, such as:

“A while ago, we talked about consent. You shared your thoughts on what it is and what it is not, and how to recognize it (and be sure you obtained it), during the sticky note exercise. Then we watched a video about sexting and discussed the motivations behind the characters’ actions. I also gave you some tips on how to make sexting as safe as possible. Lastly, we revisited the concept of consent in the context of sexual activities and discussed the importance of consent.”

This is a good time to ask a few questions about the previous lesson, such as:

- What is sexting?
- What is safe (or safer) sexting and why do we call it that?
- What does consent tell us and how can we recognize it?

Have the students sit in a circle and introduce today's activity:

"I will throw a ball to someone in the circle. The person who catches it will draw and read out a scenario where they will need to respond assertively (but not aggressively!). Then, they will throw the ball to someone else, who will do the same – and so on."

The scenarios are provided in Appendix 3. After each attempt, take a moment to offer a brief comment. If you notice that the students are finding it easy to practice assertive responses, you can challenge them by countering their arguments (taking on the role of a character in the scenario) and trying to persuade them.

Tell the class:

"Some of the situations depicted in these scenarios might feel familiar; perhaps you have experienced them yourself. Others may evoke different emotions – sometimes it will be amusement, other times irritation, or perhaps embarrassment and shame. We are dealing with topics and relationships that are close to our daily lives, so it's completely normal to react emotionally." The goal of this exercise is not to provide textbook answers but to practice formulating assertive responses. If any students struggle with the exercise, the class can offer additional input and help. Decide which scenarios to use based on knowledge of your group, their level of engagement, maturity, and sensitivity. If you find the exercise particularly challenging for the students, you can also choose to discuss the scenarios from an observer's perspective, purely theoretically, without role-playing.

CONSENT MEANS...

I NEED TO GET CONSENT WHEN...

THESE ARE NOT CONSENT..

I KNOW I HAVE SOMEONE'S CONSENT WHEN...

Scenarios
Difficulty: easy

A classmate from a parallel class says, „I'd like to invite you to the movies tonight." You do not feel like going with them. Let them know.

Your sister asks, "Can I borrow your skirt? I have a party this weekend, and I don't have anything to wear." You do not like lending your things and do not want to. Tell her that.

Your dad never knocks before entering your room. He just opens the door and walks in. This really bothers you and you want to tell him to stop.

You catch your brother stealing some of your candy. You are annoyed. Confront him and mention that he did not ask for your permission.

Your friend Carl says, "We're all getting together for board games on Sunday. Don't be a loser and don't bail on us this time. You better be there!" You already have other plans for Sunday and know you will not be able to make it. Let him know and also address the tone of his comment, as it put you off.

You feel like your mom always asks you to take out the trash and clean the bathroom, while your sister sits around. Tell mom you want to be treated equally, which also means sharing chores more equally at home between you and your sister.

During math class, the teacher explains how to solve an equation and asks the class, "Do you all get it? Is it clear?" A few people nod and say yes on behalf of everyone. You do not understand it. Let the teacher know it is not clear to you.

Scenarios
Difficulty: medium

Your partner says, "I'd like you to give me your phone password. That would be the ultimate proof of our love." You want to keep your password to yourself. Tell them that.

Your friend Antonia keeps bringing up a private matter you shared with her in front of the class. This time it is about your parents having a serious argument and considering separating. You do not want other people to know about it and it hurts that your best friend is not keeping your secrets.

Your partner wants to introduce you to their family after a month of dating: "My mom is making dinner on Sunday. My brother, aunt, and uncle will be there too. I really want us to go together. You need to meet my family." You are not ready for that yet and would prefer to just spend time with your partner. Talk to them about it.

Your friend Art plans to go to another city for the weekend with a group you do not know. He told his parents that he would be staying at your place. They want to confirm this with you. Art expects you to lie for him, but you feel uncomfortable and do not want to do it. Let him know.

In your language arts class, you are assigned a group project with four other students. As the deadline approaches, you feel like you did most of the work. One person, Alexandra, was somewhat involved, but Kevin and Eddie did nothing at all. In the end, you all got a good grade and praise. However, it bothers you that you did almost everything alone. Tell the rest of the group how you feel.

When you greet the guys in your group, you usually shake hands. That's how it has always been. But it is starting to bother you. It feels strange to shake hands with the guys while ignoring the others in the group. You want to talk about it.

You're waiting in a long line to see a doctor. The line is moving very slowly. When it is finally almost your turn, you notice that the person behind you is getting ready to go in first. You start feeling anxious. Speak up about it.

Scenarios
Difficulty: high

There is a boy in your class who likes to hug you. You do not like being touched and do not want this kind of closeness. Let him know that it is not okay with you.

You feel like your partner Kathy is not showing enough interest in you. She asks how your day was, but does not follow up with any deeper questions. She also shows little initiative and does not suggest ways to spend time together. Because of this, you do not feel she's interested in you. Tell her how you feel.

You feel your girlfriend is crossing your boundaries. Maybe she is not doing it on purpose and is simply not sure what they are. You want to find a way to communicate that some forms of closeness and intimacy are okay but others make you uncomfortable. Try to set boundaries in your relationship.

You feel the need to see the person you are in a relationship with more than once a week. You think about them and miss them. It seems they are satisfied with the current frequency of your meetings. Let them know that you need to see them more often.

Module IV

Me in a Network Full of Opportunities

Me in a Network Full of Opportunities

1. How to Use the Internet for Learning and Developing One's Passions

OVERVIEW FOR EDUCATORS

In today's world, the Internet and **digital media** play a crucial role in the learning process and developing passions. This is not only true for students but for everyone. With constant access to various online resources, each of us can continue our education and deepen our interests almost anytime and anywhere in the world. For this reason alone, the Internet has become an indispensable tool for working with young people, enabling us to use new educational materials, interactive platforms, and online learning sites every day.

Digital media – which we often associate primarily with entertainment and „wasting time" – offer almost unlimited access to knowledge. **It is therefore important to teach young people how to use the Internet today to search for answers to their burning questions.** The ability to independently explore topics and issues that are important to them will allow students to develop their interests in a direction they choose and at a pace that suits their individual needs.

The Internet and digital media do more than just provide content. The materials available online – textbooks, scientific articles, online courses, podcasts, videos, etc. – are naturally very important; however, the form in which knowledge is presented is often just as crucial. Today's online world offers many interactive tools that make the learning process much more engaging. **Language-learning apps, simulators, (educational) games, and multimedia encyclopedias** are just a few examples of resources that make learning not only more effective but also much more enjoyable.

An important aspect of expanding our knowledge on the Internet is the opportunity to belong to various **online communities**. Digital media makes it easy to connect with people (from all over the world) who share similar interests, promoting the exchange of experiences and enabling the users to inspire each other. Through **discussion groups, thematic forums, messenger apps, or social media platforms**, students can motivate each other, share their achievements, and discover new interests.

But that is not all. It is also worth emphasizing that, in the context of today's digital reality, the process of learning and developing passions is not limited to passively consuming the content that reaches us. Young people can also create content themselves. **Blogs, vlogs, social media channels, collaborative streaming, or thematic groups** not only allow them to deepen their interests but also to better assimilate knowledge by sharing it with others.

GLOSSARY

digital media	websites and online services (e.g., social media).
online community	a group of people whose interactions occur primarily via the Internet.
simulator	a tool, program, or computer game designed to replicate the operation of something (e.g., airplanes, vehicles, or other mechanisms) under artificial conditions.
streaming	the live transmission of content over the Internet (e.g., video game playthroughs).
vlog	a type of blog (web log) for which the medium is video

LESSON PLAN

Objectives

The students:

- understand the significance of learning and acquiring knowledge beyond traditional forms of education;
- are aware of the benefits associated with learning and deepening knowledge through the use of the Internet and digital media;
- are familiar with selected online platforms that can be used for learning and developing passions.

Materials

- printed worksheets (Appendix 1)
- a computer with Internet access and a projector (optional)
- printed descriptions of individuals (Appendix 2)

EXPERIENCE (15 minutes)

1. Divide the class into pairs or small groups. Hand out the worksheets (Appendix 1). Ask the students to discuss what **learning** means to them. What do they understand by this word? Do they only learn and acquire knowledge when they attend classes, do homework, or complete other school tasks? Or does acquiring knowledge mean more to them? Ask each group to note their answers on the worksheet. Emphasize that brainstorming should take no longer than 3 minutes.

2. Ask the pairs/groups to carefully analyze the activities in the table on their worksheets. The task for the students is to jointly decide whether or not the activities are related to learning. Encourage them to think about what can be learned from the described situations.

Activity	Learning or not?	If yes, what can you learn
Watching crochet videos online		
Participating in an international music forum		
Creating memes		
Streaming TV shows in French, German, or Spanish		
Listening to podcasts about celebrities and other people from the world of popular culture		
Browsing social media posts with the #books hashtag		
Playing Minecraft online with friends		
Following websites and channels about astronomical phenomena, e.g., aurora forecast radars		
Watching foreign-language gameplay videos		
Browsing TikTok		
Browsing an automotive website		
Participating in an online course organized by a Spanish organization on how to use ChatGPT		

3. Discuss the task with the class. Ask individual pairs/groups to share their conclusions.

REFLECTION (10 minutes)

1. Ask what the activities in the table have in common. The students will likely notice that these are all online activities.

2. Talk with the students about the benefits of learning online:

   - Based on the activities in the table, point out the educational opportunities that the Internet provides.
   - In your opinion, how does school learning differ from online learning?
   - In what areas or educational situations does the Internet offer solutions that are impossible in offline education?
   - How do you use the Internet for learning and developing your passions?

THEORY (10 minutes)

1. After a brief discussion, summarize the key points about how one can acquire knowledge and develop passions on the Internet (and why digital media are excellent for these activities). Use the information from the Overview for Educators section at the beginning of the lesson plan. Remember to highlight the following aspects, among others:

   - Knowledge acquired through the Internet is often absorbed incidentally – while playing games, listening to podcasts, or scrolling through social media.
   - The Internet makes it easy to search for various types of information – you can grab a smartphone, type a few words into a search engine, and find the content you are interested in. This is usually much quicker than, for example, going to the library.
   - Information gained via the Internet is often much more diverse in terms of the way it is presented – it is not just dry text in a book but richly illustrated articles, engaging videos, webinars, gamified materials, practical tutorials, etc.
   - On the Internet, you can easily adjust the difficulty level – after all, there are both complex scientific articles and short notes there that condense the knowledge you are interested in into key points.
   - Expanding your knowledge on the Internet can also have a community aspect – you can discuss the content you are interested in with other enthusiasts, e.g., on online forums or in the comment sections of educational channels.
   - On the Internet, you can easily find places where people come together to learn or share thoughts about their interests. Platforms like Discord, Messenger, or Facebook groups are often used for such activities; there are also streams on various platforms where students prepare for tests or listen to set book recordings together.
   - On the Internet, we can easily create our own content – for example, running a channel where we share our passions or present the knowledge we have gained on a particular topic.

Tip

In addition to this part of the lesson, you might show the students a few examples of platforms, apps, or websites that can help them acquire knowledge or develop passions. Remember to ask the lesson participants if they have heard of these resources before. Perhaps someone is already using them and recommends them? Examples you can show during the lesson (though you can modify this list as you see fit) include:

Khan Academy – a platform with free courses in various fields of knowledge aimed at students, educators, and parents.
https://www.khanacademy.org

Coursera – a platform where you can find paid and free courses in various fields of knowledge; the courses often have a specialized/academic nature and certificates may be awarded for their completion.
https://www.coursera.org

TED/TEDx – a brand of scientific conferences and educational projects; experts from around the world share knowledge in an inspiring and engaging way in the fields in which they specialize. The presentations are recorded in various languages and can be found on platforms like YouTube.
https://www.ted.com
https://www.youtube.com/channel/UCAuUUnT6oDeKwE6v1NGQxug
https://www.youtube.com/user/tedxtalks

Duolingo – an online app and platform for learning foreign languages.
https://en.duolingo.com

Knowunity – an online app and social platform designed for (collaborative) learning and exchanging notes on various subjects.
https://knowunity.com

Take Note!

This part of the lesson is optional and you don't have to conduct it. When discussing individual platforms, point out that the knowledge accumulated on some of them (including Knowunity) is not always verified.

PRACTICE (10 minutes)

OPTION 1 (INDIVIDUAL WORK)

Ask the students to individually think about what they would like to learn and what interests and passions they would like to develop. How can they do this? Where – online and offline – could they look for the knowledge they need? What actions would they need to take? How should they best plan them?

OPTION 2 (GROUP WORK)

Divide the class into small groups. Using the descriptions of the fictional people you prepared before class (Appendix 2), assign each group one character profile. Ask the students to imagine that they are this character's older friends and that the character has come to them for advice. What websites and applications would the students recommend to their fictional friend? What platforms would be of most use to this person? What actions should the character take – both online and offline – in order to acquire the necessary knowledge and develop their passions?

Appendix 1

Learning is _____

Activity	Learning or not?	If yes, what can you learn
Watching crochet videos online		
Participating in an international music forum		
Creating memes		
Streaming TV shows in French, German, or Spanish		
Listening to podcasts about celebrities and other people from the world of popular culture		
Browsing social media posts with the #books hashtag		
Playing Minecraft online with friends		
Following websites and channels about astronomical phenomena, e.g., aurora forecast radars		
Watching foreign-language gameplay videos		
Browsing TikTok		
Browsing an automotive website		
Participating in an online course organized by a Spanish organization on how to use ChatGPT		

Appendix 2

Ever since he was a kid, Thomas has been a stargazer, passionate about the night sky and the space beyond it. He loved going to the planetarium and his favorite childhood books were all about the stars and planets. For his thirteenth birthday, his parents got him a telescope. He is still passionate about astronomy. His dream is to go to Iceland and witness the northern lights.

Maya has always been passionate about cars. While her girlfriends played with Barbie dolls, she would devote her attention to toy cars. She dreams of starting a business that would help women find the best cars for their personal needs. This is why she has been staying up to date on the technological news.

Max dreams of spending every holiday in Italy. He loves Italian cuisine and would like to buy his own Vespa scooter, preferably yellow. He knows some Italian, but he wants to be fully fluent in the future and to get along well with Italians. Who knows, maybe he will move to Italy one day?

Mabel loves games and dreams of becoming a game developer one day. Whenever she has the time, she tests games and their different versions. She is also an admin on two gaming-related servers.

Me in a Network Full of Opportunities

2. Wake AI up! How to Write Good Prompts?

OVERVIEW FOR EDUCATORS

Since 2022, we have been able to use widely available **generative artificial intelligence** tools. These tools can create various types of content: texts, photos and graphics, audio files (including ones that imitate human speech), and more recently, even video materials. Work is underway on **multimodal systems** that will not be limited to just one form of communication.

How Were These Systems Created?

It is often said that artificial intelligence "learns" or "is trained". These are misleading terms, though this branch of computer science is indeed called **machine learning**. The process somewhat resembles learning, as it involves processing enormous amounts of material, such as billions of pages of text. However, it is not about learning through understanding, but rather using advanced computer methods and many computers (specifically, graphics cards adapted to work on AI creation and run AI models) for the statistical analysis of materials that make up a substantial part of human culture or knowledge.

For this reason, it is important to use generative artificial intelligence tools consciously and to understand their limitations and potential. Although AI can be incredibly helpful in creating various types of content, it is essential to be aware of the risks of inaccuracies or misuse. A critical approach to the results generated by these systems and their verification are necessary.

It is also worth noting that generative artificial intelligence tools are not always capable of creating content that aligns with the users' expectations. Therefore, using appropriate **prompts** is crucial. Prompts are short sentences or questions – instructions on which AI systems base their content creation. In the case of language models like the **GPT** family, prompts provide the context from which the model generates subsequent text fragments. For example, a user may provide a prompt in the form of a question, topic, or incomplete sentence and the model, using this context, will generate more sentences or paragraphs.

Some people consider prompt writing to be a new form of creativity and describe it as a fundamental skill for 21st-century workers. For others, it is a shortcut that cannot replace true human creativity.

How to Write Good Prompts?[1]

1. Describe the context. Explain to the chatbot what role it should assume – what kind of expertise it should have, e.g., "You are a geography teacher teaching high school students..."
2. Be specific. Write the prompt in a way that clearly defines the task, including details: "Propose a group exercise on nature reserves and forest conservation in Poland." When generating images, videos, or music, the prompts should include a detailed description of the scene, style, plot, genre, mood, or melody: "Create a two-minute animated video featuring two teenage girls. They are standing in front of a classroom and..."
3. Use simple language. Write the prompt as if you were having a conversation; avoid complex phrases: "Add a short note about the most important nature reserves in Poland to the exercise."
4. Provide feedback. At every stage, inform the chatbot how it should change or supplement the generated response to better meet your needs: "Add two examples of the most important nature reserves in Poland to the note..."
5. Ensure that the response is properly structured. Explain to the chatbot how the content you need should look: "The note should be one page long and written in language understandable to a first-year high school student..."

GLOSSARY

generative AI	artificial intelligence models designed to create new content in the form of text, sound, images, or videos.
GPT	a family of advanced language models developed by OpenAI based on large data sets. The chatbot ChatGPT, built on this model, can hold conversations, answer questions, create content, and even help with learning.
machine learning	a branch of artificial intelligence based on the assumption that systems can evolve based on data, identify patterns, and make decisions with minimal human intervention.
multimodal AI systems	highly advanced statistical systems that integrate different types of data to understand the context and complex meanings contained in information.
prompt	information given to a system so that it knows what to do. This can be a phrase, command, or question that leads to obtaining a response from the artificial intelligence tool or having it perform a task.

1. Based on: "Prompt Framework for Educators: The Five 'S'" Model, AI for Education, https://www.aiforeducation.io/ai-resources/the-five-s-model. Accessed 22 July 2024.

LESSON PLAN

Objectives

The students:

- understand what prompts are and know techniques for good prompt writing;
- are aware of both the risks and benefits of using generative artificial intelligence tools;
- are able to creatively use content and graphic generators.

Materials

- computers or tablets with Internet access
- paper or a whiteboard

Take Note!

Conducting this lesson requires students to have created accounts on selected chatbot platforms (e.g., ChatGPT, Gemini, Copilot) and image-generating platforms (e.g., Midjourney or Stable Diffusion) in advance. Encourage the students to do this at home before class.

EXPERIENCE (10 minutes)

1. Ask the students to sit at computers or hand them tablets. They can work individually or in pairs – decide based on the available equipment, capabilities, and needs of your class. Then instruct the students to log into one of the chatbot platforms.
2. Explain to the students that their task will be to create an encyclopedia note using a selected chatbot (e.g., about Nobel laureate Olga Tokarczuk) that could be included in a high school textbook.
3. When they have completed the task, ask them to copy the generated notes into a shared file and then to carefully read these texts and consider whether they are understandable, contain accurate information, and are error-free. If there are errors, what might have caused them?
4. Ask the students to evaluate whether the generated texts have proper structure and are written in an appropriate (e.g., scientific or encyclopedic) language.

REFLECTION (15 minutes)

1. Discuss this task with the students. Encourage a discussion by asking the following questions:

   - How understandable are the generated texts for young people?
   - Do you think they contain all the necessary information? What kind of information is missing?
   - What could have caused the errors and shortcomings in the received response?
   - Is the chatbot-generated information reliable? How and where can you verify this?

- What sources might the chatbot have used in generating the response? Did it independently indicate the websites/publications it used?
- Did the chatbot-generated response require clarification or correction? If so, how did you instruct the program to improve it?

2. At the end of this stage of the lesson, ask the students what strategies they adopted when working with the generator:
   - Did the program understand what it was supposed to do?
   - What worked well and what did not?
   - Is it easy to create a good text using a generator?
   - Did additional instructions given to the chatbot improve the quality of the response? How?

THEORY (10 minutes)

Using the Overview for Educators section from the beginning of the chapter, explain to the students how text and image generators work and how they "learn". Explain what needs to be considered when using them. Introduce the definition of a prompt and discuss the principles of good prompt writing.

PRACTICE (10 minutes)

OPTION 1

Ask the students to apply their newly acquired knowledge about prompt writing in practice. Instruct them to write the most precise prompts possible so that the earlier encyclopedia notes are even better. Encourage them to analyze whether applying the principles of good prompt writing improved the quality of the generated texts.

OPTION 2 (REQUIRES LOGGING INTO IMAGE GENERATORS)

Ask the students to log into the image generator Midjourney (https://www.midjourney.com/) or Stable Diffusion (https://stablediffusionweb.com/). Explain that their task will be to write a good prompt that will enable the tool to create a specific image or poster in the style of a selected or indicated artist. Then ask the class to find works by this artist on the Internet and compare them with the generated image. Encourage each student to analyze how closely the image resembles the original.

As a summary of the lesson, ask the students about their impressions and feelings regarding the tasks performed.

If time permits, write the most important conclusions and keywords on the board or flipchart. Perhaps you can create a mind map around the word "prompting" or the phrase "generative AI" that will remain on the classroom wall for some time or be displayed in the school hallway.

Me in a Network Full of Opportunities

3. Artificial Intelligence vs. Ethics and Copyright Law

OVERVIEW FOR EDUCATORS

In discussions about the use of artificial intelligence, e.g., in education, much is said about the ethics of automation: whether it is acceptable to replace humans with AI in tasks like writing books, essays, creating exams, or grading.

AI also raises ethical issues issues regarding **copyright**: since it operates by using vast amounts of human-created material, should every creator be compensated? If AI can flawlessly replicate a specific person's style, can it be used to create art and is this justified from an ethical perspective?

In Europe, regulations on generative AI have been under development for several years. On March 13, 2024, the European Parliament passed the Artificial Intelligence Act (the so-called AI Act). This document primarily aims to structure the rules for the creation and use of tools based on AI. According to the European Parliament's official website, the AI Act is designed to "ensure that fundamental rights, democracy, the rule of law and environmental sustainability are protected from high-risk AI."[1] The general principle is that AI creators can use available culture and knowledge unless someone reserves their rights, stating that they do not want their works used. Search engines have long operated according to this principle, scanning the Internet for content while checking whether a given server contains a **robots.txt** file that prohibits indexing its resources. Similar files, known as **ai.txt**, are now being introduced. These files allow website owners to control whether their work can be used to train new AI models. At the same time, they can still use robots.txt files to manage permissions for popular search engines.

Where some see a threat to authors, others see an opportunity to disseminate their work, as AI can enable creation by people without the necessary artistic skills. Generative AI can also assist authors and researchers in brainstorming and seeking new ideas. **However, it is important to remember that by using chatbots and other generative tools, we are building upon the work of others.** Public debates continue on whether AI-generated works should be specially labeled, so we know when we are dealing with creations that involve the work of others. This topic is mainly raised by artists who fear abuse and the complete replacement of humans by AI, including in dubbing (voice acting) and graphic design. In April 2024, a group of over 200 world-renowned artists (including Stevie Wonder, Robert Smith, Billie Eilish, Nicki Minaj, the band REM, Peter Frampton, Jon Batiste, and Katy Perry) signed an appeal to AI tool developers to stop creating programs that generate musical content by using and replicating any artist's voice without their explicit consent or proper compensation.

1. "Artificial Intelligence Act: MEPs adopt landmark law." European Parliament, 13 March 2024. https://www.europarl.europa.eu/news/en/press-room/20240308IPR19015/artificial-intelligence-act-meps-adopt-landmark-law. Accessed 5 September 2024.

There are more questions about the ethical dimensions of AI. These include the responsibility of companies that provide AI-based solutions. For example, should they support the development of culture, given their large-scale use of cultural goods?

To stay informed about AI development and discussions about its use, including in areas like creating art, texts, or graphics, it is worth visiting national and international technology websites (e.g., MIT News – https://news.mit.edu/), which publish updates on the latest developments, programs, and legal changes related to AI.

GLOSSARY

ai.txt files — text files that may contain various information or instructions but do not serve a particular technical function (like robots.txt). Their name suggests they could be used in the context of artificial intelligence (AI), though without specific standards or specifications. The files may be used, e.g., to guide AI systems on how to interact with a website, but they can have various uses.

copyright — rights granted to the creators of intellectual works (such as books, articles, music, films, images, photographs, software, architectural designs, and other artistic or scientific works). These rights include control over the use, reproduction, and distribution of copyrighted works. They aim to protect the creative contribution of authors and encourage further creativity.

ethics — a set of moral norms that a given community considers as a reference point for evaluating and regulating behavior. These norms aim to integrate the groups that adopt them around certain values.

robots.txt files — text files placed on websites that instruct web robots on which parts of the site may or may not be indexed or accessed. This helps search engines like Google better understand the site's content and structure.

LESSON PLAN

Objectives

The students:

- are aware of the ethical and legal dilemmas related to training and using generative artificial intelligence;
- understand what copyright is;
- engage in discussions on the ethical use of AI;
- know which ethical principles they should follow when making decisions about using AI technology in their daily lives.

Materials

- square light-colored sticky notes (2 per pair)
- crayons, fineliners, markers, or felt-tip pens
- a box to collect the notes
- a printed selected article (Appendix) – this can also be displayed on a screen
- computer with Internet access (optional)
- a whiteboard or flipchart (to record conclusions)
- sheets of paper (optional)

EXPERIENCE (25 minutes)

1. Divide the class into pairs and give each pair one sticky note. Ask each pair to draw a picture on it according to their own idea. Encourage them to use colors and fill the entire sticky note. They have only 3 minutes to complete the drawing.
2. When the teams finish their work, ask each pair to cut their drawing in half (in any way they choose) and place one half in the box you have prepared.
3. Mix the pieces and walk around the room, asking each team to take one half (other than their own).
4. Give the pairs new, blank sticky notes. Ask them to stick the half they took onto the blank note, covering half of it, and then draw the second half according to their own ideas (3 minutes).
5. Students can show their new drawings in two parts to each other, but this should not take more than 2 minutes.
6. Ask the class who the real author of the resulting drawing is. The discussion should last no more than 5 minutes.
7. Explain to the students that the answer to this question is not obvious. Mention that similar questions are being asked by creators whose works are being used – like the pieces from the box – to feed AI models. Display the article about the lawsuit filed by the New York Times against OpenAI and Microsoft (there are two texts from different sources in the Appendix – decide which will be better for your class). Ask the students to read it carefully. You can also read it aloud or ask for a volunteer.

REFLECTION (10 minutes)

1. Ask the students how they felt seeing their drawing used by others. What did they think? What emotions arose?
2. Then ask the students what similarities they see between others using their drawings and the use of *NYT* journalists' texts

3. Discuss the article you read together. The following questions should help:

   - How would you feel as an NYT journalist? Exploited or appreciated?
   - Is it ethical to use someone else's texts or other **copyrighted** works to train bots?
   - Is it ethical to **use someone else's works to create new ones?**
   - What impact do accusations against technology companies – e.g., that they collect and store vast amounts of our data, allow this data to leak, and use the creativity of other parties – have on your trust in everyday technology?
   - Do you think society should pay more attention to AI development and participate in discussions about the ethics of its use? If so, how can this be done?

THEORY (5 minutes)

Explain to the students that EU lawmakers have been working on regulations regarding generative AI for several years now. The general principle is that AI creators can use available culture and knowledge unless someone reserves their rights, stating that they do not want their work used. Search engines have long followed this rule, scanning the Internet for content while checking whether a given server has a **robots.txt** file that prohibits indexing its resources. Similar files, called **ai.txt**, are now being introduced. These files allow website owners to control whether their work is used to train new AI models. At the same time, they can still use robots.txt files to manage permissions for popular search engines. **Emphasize that by using chatbots and other generative tools, we are building upon the work of others.** Add that discussions are ongoing about whether AI-generated works should be specially labeled so that we know when we are dealing with creations that involve other people's work.

PRACTICE (5 minutes)

Invite the students to work in the same pairs as before. Ask them to consider **how to ensure ethical behavior** (what to pay attention to) when they want to use:

- an image generated by artificial intelligence,
- a note about a literary period (or another topic) created by a chatbot,
- a story generated by AI.

EXTENSION ACTIVITY

If you have more time, encourage the students to write a letter in teams to the appropriate European Union body (e.g., the European Commission) and request that representatives of the younger generation be included in the debate on regulating AI technology and the ethical aspects of its use. This letter should contain a justification (arguments). After reading the letters, decide together whether you want to send them. If you decide to do so, the students can translate the edited letters into English.

https://www.nytimes.com/2023/12/27/business/media/new-york-times-open-ai-microsoft-lawsuit.html.
Accessed 22 July 2024.
The New York Times, 27 December 2023
authors: Michael M. Grynbaum and Ryan Mac

The Times Sues OpenAI and Microsoft Over A.I. Use of Copyrighted Work

Millions of articles from The New York Times were used to train chatbots that now compete with it, the lawsuit said.

The New York Times sued OpenAI and Microsoft for copyright infringement on Wednesday, opening a new front in the increasingly intense legal battle over the unauthorized use of published work to train artificial intelligence technologies.

The Times is the first major American media organization to sue the companies, the creators of ChatGPT and other popular A.I. platforms, over copyright issues associated with its written works. The lawsuit, filed in Federal District Court in Manhattan, contends that millions of articles published by The Times were used to train automated chatbots that now compete with the news outlet as a source of reliable information.

The suit does not include an exact monetary demand. But it says the defendants should be held responsible for "billions of dollars in statutory and actual damages" related to the "unlawful copying and use of The Times's uniquely valuable works." It also calls for the companies to destroy any chatbot models and training data that use copyrighted material from The Times.

In its complaint, The Times said it approached Microsoft and OpenAI in April to raise concerns about the use of its intellectual property and explore "an amicable resolution," possibly involving a commercial agreement and "technological guardrails" around generative A.I. products. But it said the talks had not produced a resolution.

An OpenAI spokeswoman, Lindsey Held, said in a statement that the company had been "moving forward constructively" in conversations with The Times and that it was "surprised and disappointed" by the lawsuit.

"We respect the rights of content creators and owners and are committed to working with them to ensure they benefit from A.I. technology and new revenue models," Ms. Held said. "We're hopeful that we will find a mutually beneficial way to work together, as we are doing with many other publishers."

Microsoft declined to comment on the case.

(...)

"Defendants seek to free-ride on The Times's massive investment in its journalism," the complaint says, accusing OpenAI and Microsoft of "using The Times's content without payment to create products that substitute for The Times and steal audiences away from it."

The defendants have not had an opportunity to respond in court.

Concerns about the uncompensated use of intellectual property by A.I. systems have coursed through creative industries, given the technology's ability to mimic natural language and generate sophisticated written responses to virtually any prompt.

The actress Sarah Silverman joined a pair of lawsuits in July that accused Meta and OpenAI of having "ingested" her memoir as a training text for A.I. programs. Novelists expressed alarm when it was revealed that A.I. systems had absorbed tens of thousands of books, leading to a lawsuit by authors including Jonathan Franzen and John Grisham. Getty Images, the photography syndicate, sued one A.I. company that generates images based on written prompts, saying the platform relies on unauthorized use of Getty's copyrighted visual materials.

The boundaries of copyright law often get new scrutiny at moments of technological change — like the advent of broadcast radio or digital file-sharing programs like Napster — and the use of artificial intelligence is emerging as the latest frontier.

"A Supreme Court decision is essentially inevitable," Richard Tofel, a former president of the nonprofit newsroom ProPublica and a consultant to the news business, said of the latest flurry of lawsuits. "Some of the publishers will settle for some period of time — including still possibly The Times — but enough publishers won't that this novel and crucial issue of copyright law will need to be resolved."

Microsoft has previously acknowledged potential copyright concerns over its A.I. products. In September, the company announced that if customers using its A.I. tools were hit with copyright complaints, it would indemnify them and cover the associated legal costs.

(...)

Besides seeking to protect intellectual property, the lawsuit by The Times casts ChatGPT and other A.I. systems as potential competitors in the news business. When chatbots are asked about current events or other newsworthy topics, they can generate answers that rely on journalism by The Times. The newspaper expresses concern that readers will be satisfied with a response from a chatbot and decline to visit The Times's website, thus reducing web traffic that can be translated into advertising and subscription revenue.

The complaint cites several examples when a chatbot provided users with near-verbatim excerpts from Times articles that would otherwise require a paid subscription to view. It asserts that OpenAI and Microsoft placed particular emphasis on the use of Times journalism in training their A.I. programs because of the perceived reliability and accuracy of the material.

Media organizations have spent the past year examining the legal, financial and journalistic implications of the boom in generative A.I. Some news outlets have already reached agreements for the use of their journalism: The Associated Press struck a licensing deal in July with OpenAI, and Axel Springer, the German publisher that owns Politico and Business Insider, did likewise this month. Terms for those agreements were not disclosed.

(...)

The lawsuit also highlights the potential damage to The Times's brand through so-called A.I. "hallucinations," a phenomenon in which chatbots insert false information that is then wrongly attributed to a source. The complaint cites several cases in which Microsoft's Bing Chat provided incorrect information that was said to have come from The Times, including results for "the 15 most heart-healthy foods," 12 of which were not mentioned in an article by the paper.

"If The Times and other news organizations cannot produce and protect their independent journalism, there will be a vacuum that no computer or artificial intelligence can fill," the complaint reads. It adds, "Less journalism will be produced, and the cost to society will be enormous."

Me in a Network Full of Opportunities

4. You Can Create Online, Too!

OVERVIEW FOR EDUCATORS

Over the past 20 years, numerous studies have been conducted worldwide on how young people function online. However, most of the available reports focus on the darker side of Internet use and the associated risks: cyberbullying, online grooming, access to inappropriate content, fake news, or various forms of addiction to new media. Meanwhile, positive or neutral activities, which are relatively more numerous than the controversial ones, remain poorly described.

Almost every Internet user, especially those with social media accounts, automatically becomes a co-creator of content. Even if they do not publish it themselves, their online activity teaches algorithms what is important for audiences and what is worth showing to others on the screen. Therefore, it is worth taking a closer look at these creative activities.

Fortunately, there are now reports that include the community of young people who consciously publish online, have a vision for themselves, and pursue it persistently. But who are these young online creators? They are, first and foremost, active and passionate individuals who are constantly learning, seeking inspiration, striving to be the best at what they do, and maintaining contact and relationships with their audience. Thanks to the report *Pozytywny internet i jego młodzi twórcy. Dobre i złe wiadomości z badań jakościowych (Positive Internet and its Young Creators: Good and Bad News from Qualitative Research)*, we learn, among other things, that such individuals "develop a wide range of skills, both specialized and social, as well as self-creative competencies related to self-development and self-improvement processes. They develop, among other things: consistency and perseverance in action, independence and originality, resilience to criticism, creativity, patience in waiting for success, responsibility, and discipline. They focus on developing their passion and build perseverance in pursuing a set goal."[1]

At the same time, young online creators may be overwhelmed by the sheer number of competencies they have acquired in too short a time, leaving them with little opportunity to analyze them more deeply. "Young people's knowledge and skills can therefore be fragmented – deepened in aspects related to their passions but minimal in other areas. It seems that this situation changes the roles and tasks of the teacher. The teacher no longer delivers all the knowledge but instead becomes acombination of guide and explorer, whose task is to find and fill in the gaps in knowledge and help connect the various fragments into a cohesive whole."[2]

1. Pyżalski, Jacek, ed. *Pozytywny internet i jego młodzi twórcy. Dobre i złe wiadomości z badań jakościowych*. NASK National Research Institute, Warsaw, 2019: 71, https://cyberprofilaktyka.pl/badania/RAPORT_a4_29_5_19_inter.pdf. Accessed 7 June 2024.
2. Ibidem, p. 74.

GLOSSARY

algorithm — a finite sequence of instructions that generates output data based on input data. On the Internet, algorithms are responsible, among other things, for user profiling mechanisms and advanced recommendations, which are used, for example, in the marketing and e-commerce sectors. Algorithms allow, among other things, the creation of customer profiles that reflect their preferences, habits, and online behaviors.

cyberbullying — the use of violence through harassment, intimidation, bullying, or mocking others by using the Internet and electronic tools such as SMS text messages, email, websites, online forums, social networking sites, and others.

fake news — false information shared online or through traditional media, imitating real information for a specific purpose. Fake news is used, among other things, by politicians to discredit unfavorable media or political opponents.

LESSON PLAN

OPTION 1 (INDIVIDUAL WORK)

Objectives

The students:

- can argue why they follow their favorite creators and can categorize their work appropriately;
- are able to analyze the activities of online creators and define the communication forms they use;
- know what tools and skills are needed to create content online;
- understand the basic steps needed to become a digital creator and are aware of the challenges and benefits of creating online content;
- can describe their own idea for online creativity and know how to build their own publishing strategy online.

Materials

- sticky notes
- board or flipchart
- pens or markers
- printed worksheets (Appendix)

EXPERIENCE (15 minutes)

Initiate a brainstorming session about inspiring influencers that the students follow and whose opinions they value. Perhaps some of them do live morning meditations on *Instagram*, post inspirational quotes and nuggets of wisdom on *Threads*, or host live warm-up sessions on *Facebook*? Maybe a culinary influencer shares interesting recipes with teens daily, a gamer plays the latest releases, someone else offers tips for catching a breather in the city, and yet another records podcasts about interesting shows to watch after school?

1. Ask the students to individually write the names of their favorite creators on sticky notes with a short description (e.g., "John Smith – interesting *TikTok* reels about digital balance").



Tip

If someone needs suggestions because nothing comes to mind, they can find them in the apps themselves; for example, *Spotify's* homepage shows what we listen to the most, and YouTube's shows what we watch.

2. While the students are writing their suggestions down, prepare a blank table on the board or flipchart using the format below:

3. Ask the students to stick their notes on the board in the place you designate outside the table to create an information cloud. Then review all the suggestions together

Take Note!

Remember that every suggestion from the students is valid! Do not comment ironically on any of them. For example, watching channels with funny animals or reels with the hashtag #comedy may be someone's way of venting emotions, people of all ages are allowed to like unicorns, and fewer people outgrow this than you would think, so to each their own.

4. After reviewing the suggestions, try to catalog them in the table. This will create thematic groups, such as:

Entertain-ment	Education	Chillout	Lifehacks	Tests/ reviews	DIY



Tip

Of course, the groups may vary depending on your students' suggestions. You may not be familiar with some of the new trends or genres of online creativity – this can be a discovery for you too!

5. Once the task is completed, encourage the students to take a picture of the catalog you've created together. It is a valuable and unique collection!

REFLECTION (15 minutes)

Look at the table with the sticky notes. Some suggestions may repeat. Together, consider what makes a particular influencer important to so many people in the class. The following questions may help guide the discussion:

- Is this person credible, persuasive, and effective? If so, why? Is it about their reach, or is it something else entirely?
- How does this person influence you? What do you gain from watching their work? Why do you return to them?
- If their work makes you feel better, why? Is it about the content, the substance, or maybe the tone of voice, production quality, or predictability (or unpredictability)?
- If you could meet this influencer, what would you thank them for?
- What characteristics (traits), skills, or pro-tips from this influencer inspire you?



Tip

This conversation is a good opportunity to notice people who share similar interests, something students may not have realized before. Thanks to an influencer, students can finally connect over their passions.

THEORY (5 minutes)

Find an example of an influencer whose story is inspiring to you as a teacher and who may also interest your class. Perhaps it is someone mentioned in the catalog you created during the first part of the lesson. Present their "zero to hero" journey. Briefly discuss their case study using the following outline:

> **Idea** – what was the influencer's initial concept – their vision for themselves, their content, and persona? How did they start to implement their plan, and how did they modify it depending on the circumstances? Is it a consciously and consistently executed strategy or does the influencer adapt flexibly to the needs of the audience? (Both approaches are valid.)
>
> **Tools** – which platforms does the influencer publish on (e.g., *Facebook*, *Instagram*, *TikTok*)? How do they change their communication methods depending on the platform (e.g., they do live streams on one but post reels on another)? What forms of communication do they use (e.g., text, photos, videos)?
>
> **Influence** – how can it be defined or measured in the case of this person? What is their strength (a large reach that creates scale, or perhaps precise microtargeting)? Why can we call this person an influencer?

Draw your students' attention to the fact that most of us have a similar entry point to the Internet as creators. You only need:

- a smartphone with a camera and microphone – enough to record videos or podcasts;
- free content editing apps (texts, sounds, videos), e.g., *Open Office*, *Audacity*, *CapCut*;
- free social media platforms to publish content: *Facebook*, *YouTube*, *Instagram*, *TikTok*, *Threads*, *X*, *BeReal*, *Snapchat*, *Discord*, *Spotify*, etc.

From a technical standpoint, that's all you need. The rest is in your heads!

PRACTICE (10 minutes)

Encourage students to try stepping out of their roles as consumers of content and into the shoes of creators. Tell them we all have different passions, skills, talents, competencies, and interests: cooking, culture, art, wellbeing, songs, books, or gaming. Each student should come up with and write down ideas for content they could post on the Internet as a creator. Would it only showcase their talents? Or would building a community be essential? Or perhaps it would focus on providing tips that make life easier? It is important to define the character of these activities early on, as it will help in planning future actions.

Ask the students to try creating a schedule of their upcoming activities using the table below:

Date	Topic	Form of communication	Medium
e.g., January 1, 2025	e.g., New Year's resolutions	e.g., reel, gallery, podcast	e.g., *TikTok*, *Instagram*, *Spotify*
e.g., January 7, 2025	e.g., which of the planned things did I achieve in the first week	e.g., reel, gallery, podcast	e.g., *TikTok*, *Instagram*, *Spotify*

The following guidelines can be helpful:

Date – a series of publications works well, e.g., "10 ways to..." or "10 places worth visiting in our city." New parts in such series can be posted regularly, e.g., daily or weekly. Regularity keeps the audience's attention, as they wait for the next installment and are more likely to visit the creator's social media on the set day.

Topic – after selecting a category (e.g., gaming), it's worth thinking of something that will make the creator stand out (e.g., compared to other gaming content creators and influencers). It's great to propose something original, something that has not been done online yet. But even within existing topics, it is possible to do something fresh (e.g., minute-long TikToks with pro-tips for popular games).

Form of communication – reel, post, voice recording, podcast, stories? The topic usually determines the form, e.g., for more serious content, longer podcasts work well, cooking looks great in reels, and inspirational quotes can be shared via voice messages.

Medium – you can choose different forms for each platform (e.g., reels only on *TikTok*, photos only on Instagram, podcasts only on *Spotify*) or post the same content in several places to reach different people.



Tip

If there are several students in the class who prefer to plan this activity in a group (e.g., as a collective of individual creators or under a common brand as a crew or team), it is worth giving them the space to do so. This can result in creative ideas, e.g., one person films reels, another takes photos, a third handles the texts, etc.

At the end, invite willing students to present their action plans. If the atmosphere is supportive and you have some time left, and if the presenters agree, it is worth giving others the chance to share their feedback on the presented proposals. Ensure that the comments are constructive and delivered with understanding and respect.

Worksheet

Each of us has different passions, skills, talents, competencies, and interests. Step out of the role of a content consumer and step into the shoes of a creator. Write down your ideas for the kind of content you could post on the Internet.

Think about whether the content will serve only to showcase your talents or whether community-building will be important. Or perhaps the content will focus on providing tips to make life easier for others?

Try creating a schedule of your upcoming activities using the table below:

Date	Topic	Form of communication	Medium
e.g., January 1, 2025	e.g., New Year's resolutions	e.g., reel, gallery, podcast	e.g., *TikTok*, *Instagram*, *Spotify*
e.g., January 7, 2025	e.g., which of the planned things did I achieve in the first week	e.g., reel, gallery, podcast	e.g., *TikTok*, *Instagram*, *Spotify*

OPTION 2 (GROUP WORK)

Objectives

The students:

- know the basic steps to become a digital creator;
- understand the importance of personal branding and using social media;
- know what tools and skills are needed to create content online.

Materials

- pens or markers
- printed worksheets (Appendix)

EXPERIENCE (15 minutes)

1. Divide the students into groups of three or four. Give each group a character description of someone who wants to become an online creator (worksheet). The profiles describe different people: their goals, available resources, and the challenges they face. The groups must come up with and write down the steps their characters should take to start their online activities. Suggest that the students consider the following factors: the niche (the field in which the person wants to create content and the topics), the character's target audience, the skills that need to be developed and ways to improve them, possible tools, ideas for personal branding, suitable social media platforms, and ways to monetize the content. You can write these elements on the board.

2. Ask each group to briefly present their ideas.

REFLECTION (10 minutes)

Encourage the students to analyze the examples more deeply and draw conclusions. The following questions may help:

- What challenges did you encounter when planning the first steps for young creators?
- Do you think each character has the same chance of becoming a digital creator?
- What might be important for young creators at the start of their journey?

THEORY (10 minutes)

Based on the Experience section, briefly discuss the most important elements future digital creators should consider when creating something of their own. During the presentation, you can ask students questions and encourage them to participate actively. Use the following information.

To become a digital creator, it's worth carefully analyzing your idea and considering the following factors:

Determining the niche: How do you choose the field in which you want to create content?

The first step is to choose a topic. It is important to select one that truly interests you because creating content requires commitment and continuous improvement. Passion makes online activity more enjoyable and authentic, and choosing a specific niche allows you to build a loyal community interested in the same topic.

Skill development: What courses and tools can help you improve your skills?

After selecting a niche, it is essential to develop skills related to content creation. You can do this through online courses, self-study, and practice – there is definitely something suitable for everyone. This is important because skill development allows you to create more diverse and professional materials. High-quality content, in turn, attracts more viewers and increases engagement.

Choosing Tools

To create content, you need the right tools, such as equipment and software. These allow you to produce high-quality materials, and well-chosen tools often make the process easier. Of course, the choice of tools depends on the type of content being created, e.g., for someone who wants to publish drawings, a graphic tablet will be important, while a blogger will need all kinds of text editors.

Building a personal brand: How do you create a consistent visual style and tone of communication?

Building a personal brand is the process of creating a consistent image that will distinguish you from other creators. It is important to think about aesthetics and your visual style, the tone and content of your messages, and the values you want to represent. Remember that authenticity and honesty with your audience are most important here.

Social media: What platforms should you use and how do you build an engaged community?

Social media platforms are key tools for reaching a broad audience and building an engaged community. Each platform has its own unique features and tools, so it is worth tailoring your choices to your needs. You can choose from platforms like *Instagram*, *YouTube*, *Twitter*, *TikTok*, *Spotify*, and many others.

Monetization: How can you make money from creating online content?

Over time, you can start monetizing your online activities. This allows you to work on your own terms and earn money from your passion, which in turn allows you to invest in your development and better tools. There are many ways to monetize content, such as ads and sponsored posts, selling products or services, crowdfunding (regular donations from viewers), or joining affiliate programs (earning commissions from selling other companies' products through affiliate links).

PRACTICE (10 minutes)

1. Divide the class into groups. Encourage the group members to imagine they are a collective of Internet creators. Ask each group to come up with and write down ideas for what topics they could address online. Will their content only showcase the collective's talents? Or will community-building be essential? Or perhaps they will focus on providing life tips?

The following questions might help:

- What niche do you choose?
- What content will you create?

2. At the end of the class, invite the collectives to present their action plans. If the atmosphere is supportive and there is time, and if the presenters agree, it is worth giving other groups a chance to share their feedback on the proposed plans. Ensure that the comments are constructive and delivered with understanding and respect.

Person 1 | Young photographer

Name: Annie **Age:** 17

About the character: Annie has been interested in photography for a couple of years. She likes taking landscape and portrait photos, and her friends and family often say her works are really good. Annie dreams of reaching a wider audience, however, so that more people can appreciate her photographs.

Goals

- Create an online portfolio in order to display her best photos.
- Increase the reach of her works on social media.
- Make money from her passion by selling photographs or offering photographic services.

Resources

- a digital camera
- basic photo-editing skills
- an Instagram profile with 500 followers

Challenges

- low online visibility
- lack of experience in marketing and personal branding
- limited promotional budget

Person 2 | Aspiring vlogger

Name: Kyle **Age:** 16

About the character: Kyle loves watching vlogs on YouTube and dreams of creating similar videos himself. He is interested in technology and gaming news. He would like to be able to share his reviews and tips with others.

Goals

- Create a *YouTube* channel and regularly upload new content to it.
- Get to 1000 subscribers.
- Get sponsorship deals from technology and gamedev companies.

Resources

- a smartphone with a good camera
- basic video-editing knowledge
- an *X/Twitter* account with 200 followers interested in technology

Challenges

- no professional video recording equipment and editing software
- strong competition in the tech vlogging space
- difficulties with regular content publishing because of schoolwork

Person 3 | Aspiring culinary blogger

Name: Tom **Age:** 17

About the character: Tom loves to cook and experiment with cuisines from different parts of the world. He often prepares meals for his family and friends who praise his cooking skills. He dreams of creating a blog where he could share his recipes and cooking advice.

Goals
- Start a culinary blog and publish recipes regularly.
- Get to 500 returning readers.
- Publish his own cookbook or collaborate with companies from the food industry.

Resources
- cooking and recipe development skills
- basic web development skills
- an Instagram profile with 300 followers to publish photos of his dishes on

Challenges
- no experience in writing a blog and managing a website
- strong competition in the culinary blogging space
- needs high-quality photographs of dishes to attract readers

Person 4 | Young musician

Name: Julie **Age:** 18

About the character: Julie has played the guitar and sung since she was a child. She writes her own songs and dreams of reaching more listeners with her music. She would like to start a YouTube channel where she could upload her original material and covers, and start building an online fan community.

Goals
- Start a *YouTube* channel and regularly upload new songs there.
- Get to 1000 subscribers.
- Collaborate with other musicians and performers and take part in online concerts.

Resources
- an acoustic guitar and some basic recording equipment (microphone and audio interface)
- basic sound and video editing skills
- a *TikTok* profile with 400 followers, where she has already published some short recordings

Challenges
- no professional equipment to record high-quality sound and video content
- strong competition on the YouTube musical scene
- difficulties with promoting the channel and getting the first subscriptions

Me in a Network Full of Opportunities

5. Remixes and Virals. How to be Creative on the Internet

OVERVIEW FOR EDUCATORS

At present, memes and meme-like content rank among the most popular forms of communication in digital media. They are commonly associated with humorous images posted on the Internet, accompanied by a short, funny, or ironic caption. This would suggest that they are a combination of image and text, and contrary to what we often think about memes (that they are mainly a phenomenon characteristic of today's Internet and contemporary digital culture), this may indicate that they have a very long tradition. After all, their history can be traced back to satirical drawings once printed in the press, comic books and strips, pop art, Dadaism, or even Baroque-period culture (for example, emblems – compositions where the interdependence of images and words played an important role).

However, this way of thinking about memes does not fully capture their highly complex nature. According to Limor Shifman – an Israeli researcher specializing in communication and digital culture – this phenomenon is much broader. In her book *Memes in Digital Culture*,[1] Shifman identifies three key aspects that, in her opinion, characterize Internet memes. First, she sees memes as a collection of digital elements that share common characteristics (e.g., similar content or form). Second, they are created with an awareness of the existence of similar types of content and the relationships between them. Third, they are spread, replicated, and transformed by many people via the Internet.

From this perspective, examples of memes are not limited to funny online images with captions. A popular *TikTok* trend, a song that goes **viral** inspiring people worldwide to record simple dance routines to it, a funny reaction GIF used to comment on online content, or a widely viewed Instagram reel that sparks a wave of **remixes** by users who found it moving or amusing – all these can be considered memes.

This last aspect seems particularly interesting in the context of Internet memes. They are often perceived as a rather simple, if not simplistic, form of communication. After all, creating memes involves a kind of repetition – people use the same templates or record videos following the same conventions.

However, it is precisely this mechanism that holds their greatest power. Because memes are often based on similar patterns, we can become much more creative and imaginative. Their repetitive structure, which we immediately recognize, suggests new solutions – we do not need to come up with everything from scratch. This method of creating Internet memes can, therefore (surprisingly), enhance our creativity and sense of belonging to a community (within a given community, we understand the meaning of different conventions, which then become a permanent part of our language). However, it is worth remembering that, despite their characteristic repetition, creating a good meme that achieves a massive reach is a real art![2]

1. Shifman, Limor. *Memes in Digital Culture*. Cambridge, London, The MIT Press, 2013, pp. 7–8.
2. While discussing memes and memetic/memeable content, you can also bring up the concept of copyright. You can read more about memes and copyright protection in the article: https://natlawreview.com/article/who-owns-memes. Accessed 7 June 2024. Remember, however, that the topic of this lesson is supposed to be creativity, not copyright.

GLOSSARY

meme — a genre of Internet expression, often in the form of a humorous image. According to Limor Shifman, memes can be various examples of digital content that share a similar convention, making it recognizable to different people and easily replicable and remixable.

remix — a rework; material that was created by modifying other material

viral — online content that gains great popularity and spreads quickly among a large number of people (content can be viral or can be said to go *viral*).

LESSON PLAN

Objectives

The students:

- understand what Internet memes are and the characteristics that define them;
- are able to use the Internet phenomenon of memes to create original and imaginative web content;
- are able to use digital media to communicate and design engaging content with a community-building character.

Materials

- sheets of paper
- pens or markers
- printed worksheets – meme templates (Appendix)
- sticky notes (optional)

EXPERIENCE (7 minutes)

1. Ask the students:
   - What, in your opinion, are Internet memes?
   - Are they a popular phenomenon?
   - Who among you looks at memes online?
   - What do you like about them?
   - Do any of them (or anything about memes in general) annoy you? What?
   - Have any of you ever created memes?

Take Note!

At this stage, there may be a variety of responses. Students might say, for example, that memes are funny drawings on the Internet or humorous content shared on social media. Each of these answers is correct, so it is worth encouraging participants to share their thoughts.

2. After a brief discussion, display three examples of memes you have selected, created using popular Internet templates (you can find suggestions below). Ask the students:
   - What do you think about them?
   - Did any of you recognize the templates they are based on? What other memes do you know that are based on these templates?
   - Do you consider these memes to be good?
   - What topics do these memes address (and in what way)?







Tip

Instead of the examples included in the lesson plan, you can show other memes – perhaps ones you know yourself or ones that are currently most popular. You can find various meme examples, along with information about their history, on websites like Know Your Meme (https://knowyourmeme.com). You can also ask the students to select some of the best-known examples they are familiar with.

REFLECTION (10 minutes)

Based on the previous activities, ask:

- Did you enjoy this activity? Why?
- Why do you think we are discussing this topic in class?
- Do you think the memes shown earlier could be popular on the Internet? Why?
- What do you think are the reasons why some materials achieve great visibility and capture the attention of a lot of people online?
- What do you think makes for a good meme?

Tip

During the group discussion, responses might include:

- A good meme is one that we can easily relate to.
- A good meme can illustrate the emotions we are feeling at a given moment or our mood.
- A good meme gives us a sense of participating in a community (of people who relate to or understand it).
- A good meme is surprising and creatively addresses the topic it covers.
- A good meme is often inspiring – it is easy to remember and then remix or replicate.
- A good meme can make us feel good.
- A good meme can succinctly summarize important events or phenomena for us.
- A good meme is often ironic or even sarcastic, which makes it easier for us to remember it and feel engaged.

THEORY (8 minutes)

1. To structure this part of the lesson, start by displaying the definition of an Internet meme from Limor Shifman's book *Memes in Digital Culture*:

I suggest defining an Internet meme as (a) a group of digital items sharing common characteristics of content, form, and/or stance; (b) that were created with awareness of each other; and (c) were circulated, imitated, and/or transformed via the Internet by many users.[3]

2. Ask the class how they understand this definition. What are Internet memes according to Limor Shifman? What are their defining characteristics?

Take Note!
Limor Shifman claims that Internet memes are not just funny images published online, but also other digital content (e.g., GIFs, TikTok trends, popular reels, etc.) that use a similar convention, making them well-recognized by various people. The commentary provided in the Overview for Educators section can help guide the discussion.

3. Emphasize that one of the most important characteristics of memes is their ease of replication and modification.

4. Mention that actions utilizing memes and their key features (repetition, virality, recognizability, ease of modification, humor, surprise, or even shocking contrasts) are often used to promote important social causes – for example, encouraging people to vote or raising environmental awareness.

5. Ask your students the following questions:
   - What do you think about this?
   - What do you think this involves?
   - Do you think repetition is an important characteristic of memes – especially from the perspective of people communicating with each other and creating content in digital media?
   - Does the fact that memes (templates) are repetitive make something easier? What? Or does it make things harder?
   - Do you think creating or modifying memes is creative, imaginative, and fun?

6. Conclude by mentioning how few people are active creators online, even though it can be a fun and activity good for personal development.[4]

Tip
During the conversation, bring up the potential benefits of using memes for communication (these might also come up in the students' answers):
- There is no need to come up with something from scratch.
- This way, it is easier to activate creativity – after all, when we create new content, we are referring to already recognizable conventions.
- One is able to more easily specify one's own thoughts – since we can recognize a distinctive pattern, there is no need for additional explanations. The meme creator can easily supplement it, using various ideas.

3. Shifman, Limor, op. cit., pp. 7–8.
4. Roberta Katz, Sarah Ogilvie, Jane Shaw, i Linda Woodhead, Gen Z, Explained: *The Art of Living in a Digital Age*, University of Chicago Press, 2022.

- The recognizability of memes allows one to reach a larger audience.
- The ability to actively participate in a community by creating content that is easily recognizable by that community.

PRACTICE (20 minutes)

Based on the previous reflections, ask the students to complete the following exercise:

OPTION 1

Divide the participants into groups of three or four. Return to the meme templates from the first part of the lesson and distribute them to the groups. Ask the students to choose a topic that is important to them and their peers, and create their own memes based on the templates, which they believe will be popular among their peers.

Reserve time for presenting the works and prepare a space where you can display them. Appreciate the topics addressed, creativity, and humor.



Tip
This task can also be done using websites or apps for creating memes (for example, https://imgflip.com). Participants can upload their memes to a virtual board (such as *Miro* or *Padlet*).

OPTION 2

Divide the students into groups of three or four. Ask each group to prepare their own plan for digital media activities that could become popular with young people, and, at the same time, would tackle an issue of importance to society. The proposed actions should be attractive and engaging enough for others to want to take part in it, recreate it, modify and transform it, and share the effects on their profiles. What viral trend could arise this way? What issue could it address?

If your students find it difficult to come up with ideas for their actions, you can suggest one of the following issues for them to explore and focus on:

- Turning off the tap while brushing teeth
- Turning off the lights in empty rooms
- Unplugging chargers no one is using and other unnecessarily plugged-in appliances
- Waste sorting
- Encouragement to vote in student government elections
- Reusing sheets of paper by writing on the blank sides
- Drinking tap water

- Not setting off fireworks
- Exercising outside every day

It is important to reserve time for the groups to share their ideas with the rest of the class or in a shared online space. Appreciate the ideas, creativity, subject matter, and humor (if your students upload their projects to the Internet, do not forget to leave an encouraging and reinforcing comment).



Tip

This activity can be conducted in different ways. The students can discuss their ideas in groups and simply talk about their project; they can create a mind map on a sheet of paper; or, for example, record an example video or create any other digital prototype of a meme as understood by Limor Shifman, and share it on the interactive board or in a class social media group or group chat.

The main point of this exercise is to encourage the participants to share their observations about the issues and content that they believe will be most engaging for young people and the most creative. It is also important that they realize the potential of memes and their creative reworking.

Me in a Network Full of Opportunities

6. Work in the Age of New Technologies

OVERVIEW FOR EDUCATORS

There is no doubt that **new technologies** have a significant impact on our daily lives. They also shape our labor market. Recognizing this process is crucial for students and teachers alike, as it helps us understand which **future skills** are especially worth developing during school activities (and beyond). This enables young people to better prepare for the upcoming challenges.

One of the most visible effects of the technological revolution is the rise of **remote** and **hybrid work**. Thanks to communication tools and other technologies that facilitate information exchange, we can perform our duties from various locations around the world. The COVID-19 pandemic accelerated this process, demonstrating on a large scale that remote work can, in many cases, be as effective as working from the office. However, this period also revealed that remote work can involve complications, such as the difficulty of building relationships and maintaining contact with other team members.

New technologies not only affect how we work but also the type of work we perform. According to data published in the *Future of Jobs 2023* report,[1] nearly one-quarter (23%) of jobs will change in some way by 2027. Ongoing **digitalization, automation**, and the development of artificial intelligence will reduce the demand for many positions (and some will be eliminated entirely). Currently, the change is particularly noticeable for those working in clerical, office, cashier, and data entry roles.

At the same time, many new professions will emerge, some of which did not exist recently or did not function in their current form. Examples of these developing professions include:

- artificial intelligence and machine learning specialists,
- information security analysts,
- e-commerce and digital transformation specialists,
- sustainability and green economy specialists,
- renewable energy specialists.

In the rapidly changing realities of the labor market, it is essential to support young people in developing the skills that will help them manage their future careers more effectively. Therefore, particular attention should be paid to skills such as:

- flexibility and adaptability – enabling rapid adjustment to new working conditions,
- self-development and lifelong learning – facilitating continuous skill improvement in a world where technology is likely to continue evolving,
- analytical thinking and creativity – helping to effectively solve problems and create innovative solutions.

1. Future of Jobs Report 2023 released on the occasion of the World Economic Forum, World Economic Forum, Cologny/Geneva 2023, https://www3.weforum.org/docs/WEF_Future_of_Jobs_2023.pdf. Accessed July 31, 2024.

Furthermore, as teachers (and more broadly, as a society), we should emphasize actions that foster the development of other soft skills, such as teamwork, empathy, communication, active listening, stress management, and leadership. **Encouraging curiosity, the pursuit of self-development, the ability to learn independently throughout life, and resilience to change** are key issues now, and we must prepare our students for a new reality in which these abilities and behaviors will be necessary.

GLOSSARY

automation	a process related to the partial or complete reduction of human labor through the introduction of machine-based solutions.
digitalization	the process of introducing digital technologies into daily activities (e.g., in a company or institution).
future skills	abilities and competencies that will be crucial in the coming years.
hybrid work	a work model in which individuals perform their duties both remotely and in a traditional office, combining the flexibility of remote work with face-to-face collaboration in the workplace.
new technologies	modern and advanced technical solutions that introduce innovations and improvements to various areas of life and work.
remote work	performing professional duties outside of a traditional office, usually from home, using technology that enables communication and collaboration over long distances.

LESSON PLAN

Objectives

The students:

- are able to critically assess how the Internet and digital media have impacted the modern job market;
- understand the key skills that will be valuable for the future job market;
- can identify the major challenges that may shape the future job market.

Materials

- sheets of paper
- writing utensils
- printed worksheets
- sticky notes (optional)

EXPERIENCE (10 minutes)

1. Referring to the topic of the lesson, ask the students whether they believe the advent of the Internet, digital media, and other new technologies has changed the (modern) labor market in any way. Also, ensure that the class understands these concepts (for example, new technologies can include self-service checkouts or AI-based tools like chatbots).

2. Next, divide the students into groups of three or four and give each group a sheet of paper with pre-written job titles. Below is an example list, but feel free to modify it as needed:

   - Teacher
   - Shop owner
   - Doctor
   - Journalist
   - Music composer
   - Clerk/official
   - Librarian

3. After distributing the materials, ask the groups to consider how new technologies have changed the way these professions function. Have the students write their thoughts on the sheets of paper, for example, in the form of a word cloud.



Tip

If you want to make the task more challenging, ask the students to consider the opportunities and challenges that have been brought by technology (they will create a simplified SWOT analysis this way). Their worksheet could look like this:

PROFESSION	
OPPORTUNITIES	CHALLENGES

REFLECTION (5 minutes)

After the exercise, ask the students to share their thoughts. Questions to guide this discussion include:

- Was the task difficult or easy? Why?
- What surprised you?
- What time frame did you adopt for the changes (what point in the past did you compare to the present)?
- Has anyone ever thought about how the labor market is being transformed by new technologies? Why?

THEORY (10–15 minutes)

In this section, refer to the information from the Overview for Educators at the beginning of this lesson plan.

1. To start, ask the students if they can think of any jobs that did not exist in their current form but **were created** due to the development of the Internet and new technologies. What are these jobs? Your role is to facilitate the group discussion.



Tip
You can conduct this task in one of three ways:

- in the traditional format of a brainstorming session or discussion, where the class shares their ideas openly;
- as a brainstorming session with sticky notes, where students write down their answers and stick them to the board;
- as a brainstorming session using digital tools that allow for creating a cloud of ideas, such as *Mentimeter* (http://mentimeter.com).

Examples of jobs the students may mention include:

- Internet content creator,
- digital game designer,
- web designer,
- 3D graphic artist,
- social media manager,
- data analyst,
- AI specialist.

2. Just as new jobs have emerged due to technological changes, there are undoubtedly areas that have disappeared, fallen into crisis, or had to completely transform. Ask the students if they can think of examples of jobs or entire sectors that, to some extent, have been replaced by new technologies. What are these jobs/sectors?

Continue the conversation in the same way as before. If you feel it would benefit your group, you can change the dynamic and use a different format.

Examples that the students might mention include:

- traditional travel agencies,
- some translation services,
- transcriptionists,
- copy-editing departments in magazines,
- retail (e.g. specialty stores that have moved online),
- the role of cashiers.

3. Ask the students what they think of this change, e.g., in the context of the ongoing development of artificial intelligence (AI). Do they view the changes brought by technological advancement as an opportunity for themselves or more as a challenge or threat? What do young people think about the pace and nature of these changes (are they happening quickly or slowly, are they frightening or exciting, do they create uncertainty, etc.)?

4. Referring to the previous discussion, ask the students what **skills** they think should be developed to best prepare for the future labor market.

5. After several responses, display or write on the board a list of competencies from the Future of Jobs Report 2023 that experts suggest are important to develop for the future labor market. You can choose just a few of them – for example, those that are most understandable to you (if something is unclear, you can look it up on the Internet).

This list includes, among others:

- **creative thinking,**
- **analytical thinking,**
- **technology literacy,**
- **curiosity and lifelong learning,**
- **resilience, flexibility, and agility,**
- **systems thinking,**[2]
- **AI and Big Data,**
- **motivation and self-awareness,**
- **talent management,**[3]
- **service orientation and customer service,**
- **leadership and social influence,**
- **empathy and active listening.**

2. Systems thinking is a way of reasoning that focuses on the ability to recognize the relationships between disparate elements of a larger whole. This approach enables us to understand and analyze complex systems (e.g., the operations of a company or organization) in the context of the interrelation of the elements and their interactions.
3. Talent management means the ability to manage the potential of a company's employees.

6. Ask the students if all the competencies are clear and understandable. If not, explain them using your knowledge or a description found on the Internet. What does the class think about this? Why were these skills deemed important for the future labor market? What does this choice point to or reveal?

During the discussion, the following responses may come up:

- The labor market will change dynamically, so skills that enable rapid adaptation will be necessary.
- Skills related to solving complex and unconventional problems will gain importance.
- Technology, especially AI, will significantly influence the future labor market.
- The changing labor market will destabilize the permanent job model, making it essential to acquire new skills.
- Working with people and understanding their needs will become increasingly important.

If any of the above responses do not come up, feel free to add them yourself.

PRACTICE (15–20 minutes)

Building on the previous discussion, invite the class to take part in an exercise. There are two different variants for you to choose from:

OPTION 1 (EASIER)

Ask the students to imagine the world 10–15 years in the future. Then, divide the class into groups of three or four and ask each team to create the longest possible list of professions that do not currently exist, but that they think might emerge due to the development of new technologies.

Students can approach this task playfully and come up with funny job ideas, such as:

- virtual reality dog walker,
- smartphone silencer,
- professional computer blocker (to prevent overuse).

This is perfectly fine, as it encourages creativity in young people.

OPTION 2 (MORE CHALLENGING AND REQUIRES MORE TIME)

1. Divide the class into groups of three or four and ask them to create some future scenarios. Instruct the students to discuss within their groups what they think the job market might look like in 10–15 years:

    - Which sectors will grow and which could disappear completely?
    - What new technologies will emerge?

- What jobs will be most popular at that time?
- What trends will play a key role?

2. Distribute pre-prepared worksheets to the groups and explain that they will be using a **storyboard** technique for this activity, which is like a comic strip made up of sequential panels. Their story begins with: "This is the future. We wake up in the morning and start getting ready for work..." What might a day in the future be like?

Take Note!

After the group work, review all the drawings and listen to each group's story. Consider keeping their work and displaying it in a prominent place in the classroom or school.

EXTENSION ACTIVITY

Building on these discussions, you could also organize a debate (such as an Oxford-style debate) where the students consider how new technologies (for example, the development of artificial intelligence) could change the job market, and the positive and negative impacts this could have on today's teenagers. If you choose to do this, the lesson will last longer than one class period.

Worksheet

Think about what the job market might look like in 10–15 years:

- Which sectors will grow and which could disappear completely?
- What new technologies will emerge?
- What jobs will be most popular at that time?
- What trends will play a key role?

Using the storyboard technique (comparable to writing/drawing a comic strip made up of sequential panels, scene after scene), create a **future scenario**. Your story starts with: „This is the future. We wake up in the morning and start getting ready for work…" What might your day look like?

7. From Clicking to Civic Engagement! The Civic Potential of the Internet.

OVERVIEW FOR EDUCATORS

The Internet and digital media are now an integral part of our daily lives. They have become a space for acquiring knowledge and participating in entertainment, while also offering nearly limitless possibilities for communication. However, it is worth remembering that, in addition to these obvious activities, the web also carries enormous potential for civic engagement. Thanks to various platforms, digital tools, and online activism, users can participate in social and political life, influencing the reality around them.

The web has revolutionized the ways we can engage socially. Traditional forms of activism, which required our physical presence at demonstrations, protests, rallies, or meetings, have been joined by digital opportunities to be heard and to express support, as well as by digital forms of civic involvement. Social campaigns, which once had to be planned over many months and required significant financial resources, can now gain a global reach in just a few days or hours thanks to digital media. Just a few clicks are enough to sign a petition, join a group supporting a specific initiative on Facebook, or participate in a discussion on X/Twitter.

One of the most spectacular examples of the power of the web is the #MeToo movement, which started online and evolved into a global movement against sexual violence. In this context, it is also worth mentioning the online platform Avaaz.org, which allows people to create and promote petitions, mobilizing people worldwide to act on issues like environmental protection, human rights, or democracy.

> Effectively introducing students to the world of digital engagement is extremely important these days, as schools can play a key role in shaping conscious citizens. As educators, we can teach young people how to responsibly use Internet tools to express their views, initiate social changes, or engage in civic projects.

Of course, the Internet is full of traps that users can fall into. Issues such as misinformation, hate speech, or so-called **clicktivism** or **slacktivism** (limiting oneself to symbolic support without taking real action, for example, by liking a page or sharing a post) are significant challenges. Therefore, it is all the more important to prepare young people to look at the world around them consciously and critically. For the Internet to serve as a tool for positive social change, we need to learn to use it responsibly. A critical approach to information, conscious

participation in debates, projects, and social actions, and the willingness to take real action are essential elements of effective civic engagement.

The Internet is undoubtedly an excellent space that we can use to make our voices heard around the world. From liking posts published on social media to organizing international campaigns on YouTube – the possibilities of the web are almost limitless. Let's try to show our students the potential of modern digital media. Using these tools, young people (and not only young people) can change their daily lives for the better every day!

GLOSSARY

citizen journalism	grassroots, engaged journalism carried out in the public interest, often by people who are not professional journalists.
clicktivism/ slacktivism	often criticized forms of online activism that only involve clicking the like button or passively sharing information about collections, petitions, or other social actions on one's social media.
crowdfunding	community funding; a way of raising funds for projects or charitable purposes through public collections.
time banks	initiatives based on the free exchange of services or skills between different people (for example, mutual language learning).
virtual volunteering	a form of volunteering conducted online using digital tools.

LESSON PLAN

Objectives

The students:

- understand what civic engagement is and the forms that activist actions can take on the web;
- know how to create content and strengthen civic engagement in digital media;
- build civic awareness and can independently express themselves in digital media.

Materials

- computer and projector
- sticky notes (optional)
- cardboard, paper (optional)
- markers, paints, crayons (optional)

EXPERIENCE (10 minutes)

1. Tell the students that during the lesson, you will look at the issue of activism and the civic potential of the Internet. Ask the participants what activism and civic engagement are. What do they involve? Can the students think of any examples of activist actions where the potential of the Internet was used?

2. After a brief discussion on the topic, present some selected examples of social actions or activist efforts where digital media played a crucial role. You can use examples from the Appendix or find your own.



Tip

You can also modify the task and divide the participants into groups of four or five, asking each group to search the Internet for key information about the examples you have prepared earlier (print their names, cut them up, and have groups draw them randomly). You can also ask students a few days earlier to familiarize themselves with these actions (and perhaps point to their own examples of activist actions that they know from the Internet).

REFLECTION (5 minutes)

1. After presenting the selected examples, ask the students what they think about them. Did any of them particularly catch their attention? Did any seem too controversial?

2. Next, ask the class to consider what characterizes all the activist actions presented earlier (despite their quite different specifics). What factors make them so engaging for so many different people?

You can conduct this task in two ways:

OPTION 1

It can take the form of a short brainstorming session – a classic one using sticky notes or digital tools that allow the creation of a thought cloud.

OPTION 2

You can also ask the students to think about this issue in groups of three or four.

During the joint discussion, the following answers to question 2 from the Reflection section may emerge (you can write them on the board or flipchart):

- The grassroots nature of these actions – they are often created and participated in by "ordinary" people.
- These actions evoke emotions (which makes them even more attention-grabbing).

- It's easy to participate – sometimes all that is required is sharing a post, signing a pre-prepared petition, using a hashtag, or adding a profile picture frame.
- They often concern specific individuals, and, as such, they stop being anonymous. It is easy to identify with their heroes.
- Thanks to the Internet and digital media, these actions become highly visible – they can be shared and passed on to others.
- Participating in them gives us a sense of belonging to a community (in part, thanks to the fact that we can respond to comments or like posts written by other users).
- They often break the mold – they are shocking, reminiscent of happenings, or in some other way break out of established conventions

THEORY (10 minutes)

1. After the discussion, point out the many different forms online and digital media activism can take (they often complement traditional offline activities – digital media are then simply used as a tool to amplify and quickly spread the promoted idea). At this point, you can use the information from the Overview for Educators section at the beginning of this chapter.
   From the examples discussed, it is clear that online activism can include social campaigns, protests, online petitions, collections, etc.

2. Ask the students if they can think of other examples of civic actions that can be taken online. What are they? This category is very broad, including crowdfunding, virtual volunteering, time banks, citizen journalism, etc.

3. Tell the students that despite the wide variety of online activism, it is often discussed in negative terms. In public debates, the dual nature of these actions is often highlighted through the use of two terms:

   clicktivism – a portmanteau of the words "click" and "activism,"
   slacktivism – a portmanteau of the words "slack" (as in "slack off," i.e., work less hard) and "activism."

Ask the class what they understand these terms to mean and what they think about them. Can merely clicking on content, which is not backed by "real" actions (such as attending protests), truly be seen as problematic? Or is the most important aspect of online activism expressing oneself in any way (even by using a photo overlay or changing a profile picture) and spreading knowledge about important social issues?

This task can be conducted in two ways:

OPTION 1

It can take the form of a classic brainstorming session, where students share their thoughts with the class.

OPTION 2

It can also be a team task where the class discusses the issue in groups of four or five.

PRACTICE (20 minutes)

Building on the earlier reflections, ask the class to complete an exercise. Choose one of the following two options:

OPTION 1

1. During various social actions, banners with attention-grabbing or sometimes controversial slogans play an important role. It is common for photographs of these banners to appear on social media and gain immense popularity. Ask the participants which banners or slogans particularly stuck with them. You can show a few selected examples, for instance, from the Archive of Public Protests: https://archiwumprotestow.pl/en/home-page/

2. After a short conversation, ask the participants to think about whether there are any issues in their lives that they would particularly like to protest about. What are they? Then hand out cardboard, paper, and writing materials. The task for the students will be to prepare banners with engaging slogans.

Take Note!
This exercise can be done individually, in pairs, or in small groups. One source of inspiration could be the Instagram profile Dude With Sign (https://www.instagram.com/dudewithsign/), where the creator posts photos of his often absurd banners.

OPTION 2

Divide the students into groups of three or four. Ask each group to come up with their own idea for a civic action or social campaign that could be promoted through the Internet. The campaign can address any social issue, such as encouraging actions for the local community, the climate, democracy, human rights, gender equality, or any other ideas or values that are important from the perspective of young people today. How would the campaign proceed? What hashtags should be used? What social media trends could be associated with it? What actions can be taken to spread the word about the campaign widely?

EXTENSION ACTIVITY

Referring to the theoretical part of the lesson, you can also organize a debate (for example, an Oxford-style debate), where the students consider which forms of online activism they find most effective and compelling. Can sharing posts and clicking likes be seen as a form of civic engagement? Why? If you choose to organize a debate, the lesson will last longer than one class period.

Black Lives Matter Movement

The Black Lives Matter movement is an international campaign advocating for the rights of Black people. It began in 2013 when the hashtag #BlackLivesMatter emerged on social media. This hashtag became a symbol of protest against the acquittal of George Zimmerman, who, as part of a neighborhood watch, fatally shot Trayvon Martin, an unarmed African American teenager, on the night of February 26-27, 2012. The event sparked protests worldwide. In addition to participating in traditional demonstrations, people began changing their profile pictures, signing online petitions, posting messages, and recording videos criticizing the act of violence.

More information:
https://blacklivesmatter.com
https://en.wikipedia.org/wiki/Black_Lives_Matter

Protests by the Just Stop Oil Group

Just Stop Oil is an activist group from the United Kingdom that seeks to halt the extraction and production of fossil fuels. Their activities are often radical and sometimes involve acts resembling vandalism. One of their most notorious actions involved two activists throwing canned tomato soup at Vincent van Gogh's *Sunflowers* in the National Gallery in London and then gluing their hands to the wall. These actions are often conducted in ways or venues that ensure media presence and coverage or that they are recorded on smartphones. Once shared on digital platforms, they almost immediately gain widespread visibility (or notoriety), stir significant controversy, and are widely discussed or criticized by people both online and offline, which ensures wide reach.

More information:
https://juststopoil.org
https://en.wikipedia.org/wiki/Just_Stop_Oil
https://www.theguardian.com/environment/2022/oct/14/just-stop-oil-activists-throw-soup-at-van-goghs-sunflowers

The Song *Dance You Outta My Head* by Cat Janice

Cat Janice was an American singer who passed away from cancer in 2024. Before her death, she recorded the song *Dance You Outta My Head*, which she then released on social media and streaming platforms. The income from the song's streams was intended to provide financial security for her 7-year-old son. The song went viral on the Internet and people began sharing it widely on TikTok and other social media platforms to reach as many listeners as possible. Even well-known influencers participated in spreading the song.

More information:
https://en.wikipedia.org/wiki/Cat_Janice
https://www.theguardian.com/technology/2024/feb/29/cat-janice-dead-tiktok-singer

Amnesty International's Write for Rights Campaign

The Write for Rights campaign is one of the world's largest human rights initiatives, organized annually by Amnesty International. It involves grassroots efforts (such as those held in schools) to write letters in support of individuals whose human rights have been violated. As part of the campaign, participants can also sign online petitions and hold online fundraising drives.

More information:
https://www.amnesty.org/en/get-involved/write-for-rights/

8. How Does Digital Infrastructure Impact the Environment?

OVERVIEW FOR EDUCATORS

Modern society is increasingly immersed in the digital world, often unaware of the physical dimension of the **Internet** and its ecological consequences. Meanwhile, digital infrastructure is a complex network of virtual and physical elements necessary for the functioning of information systems and communication networks.

Among the key components of this infrastructure are **data centers**, also called cloud computing data centers. These are massive clusters of computer **servers** and network devices, such as routers, switches, and modems. They serve as central points for processing and storing billions of bytes of data for various Internet services and applications, such as email or websites.

Data centers occupy large areas – the largest ones can span several dozen hectares, which is equivalent to the size of several football fields. Technology giants build their centers in various locations around the world, recently even underwater. For instance, Microsoft placed around a thousand servers, along with a complete cooling infrastructure, in the sea inside a steel tube.[1] Similar solutions on a much larger scale are already being implemented by China.

Other elements of digital infrastructure include telecommunications networks – cable, cellular, and fiber optic – which enable access to computational resources. Not everyone realizes that there are **more than a million kilometers of fiber optic cables underwater, in the depths of the seas and oceans**, creating intercontinental connections. Currently, there are over 400 such submarine communications cables. For example, one of the longest connects Perth in Australia with South Korea, India, Egypt, Portugal, and Germany. It is worth knowing that submarine communication cables are responsible for transmitting about 99% of all data.[2]

Digital infrastructure has a significant impact on the environment. Its construction, maintenance, and cooling involve the consumption of natural resources such as water or rare metals, and require enormous amounts of energy, often derived from fossil fuels. It is estimated that data centers may consume up to 2% of the global electricity, which corresponds to the total energy consumption of some small countries. The operation and maintenance of data centers contribute to CO_2 emissions and other greenhouse gases. According to data from the International Energy Agency from September 2022, **data centers account for 0.9–1.3% of global CO_2 emissions**[3] and this share is expected to systematically increase.

1. Roach, John. "Microsoft finds underwater datacenters are reliable, practical and use energy sustainably." Microsoft, 14 Sept. 2020, https://news.microsoft.com/source/features/sustainability/project-natick-underwater-datacenter. Accessed 2 June 2024. Tech Vision. "Why Microsoft Has Underwater Data Centers." YouTube. 10 Jan 2021, https://www.youtube.com/watch?v=LmfvUiJ6tB8. Accessed 2 June 2024.
2. Gallagher, C. Jill. "Undersea Telecommunication Cables: Technology Overview and Issues for Congress." *Congressional Research Service*, 2022. Accessed 2 June 2024.
3. International Energy Agency. "The *CO_2 Emissions in 2022* report", International Energy Agency. Paris 2023, https://www.iea.org/reports/co2-emissions-in-2022. Accessed 2 June 2024.

It is also extremely significant from an environmental perspective that the production and disposal of electronics generate vast amounts of waste, also known as e-waste or electronic waste, which represents the fastest-growing group of waste in the world. **According to a UN report, we generate over 53 million tons of this type of waste annually, which corresponds to the weight of 350 Queen Mary 2 ocean liners.**[4] E-waste is also difficult to recycle. It often contains toxic substances and generates gases such as methane or nitrous oxide.

The development of technology, although it brings many benefits to society, requires a sustainable approach to environmental protection in order to limit the negative effects on nature and future generations. This is the subject of digital ecology.

Digital ecology is a field of science and practice that examines the impact of digital technology on the natural environment and seeks ways to minimize it. It encompasses a wide range of issues, including energy resource management, greenhouse gas emission reduction, energy efficiency, electronic recycling, eco-friendly software and hardware design, and promoting the conscious use of digital resources. Digital ecology is becoming an increasingly important issue that requires attention and action from all of us – users, technology companies, and policymakers.

Each of us can contribute to minimizing the negative impact of technology on the environment by choosing more efficient devices and promoting sustainable practices in Internet usage:

- Choose energy-efficient devices and ensure that your equipment is used efficiently. Turn off electronics when they are not in use.
- Use cloud services consciously, only storing the data that is truly needed. Regularly delete unnecessary files and archives, and choose cloud providers that use energy-efficient technologies and renewable energy sources. This way, we can reduce the demand for resources in data centers and contribute to reducing CO_2 emissions.
- Instead of throwing away electronic devices you no longer use, return them to specialized recycling points where they will be properly processed. Recycling electronics helps reduce the amount of e-waste and prevents environmental contamination by toxic substances contained in the equipment.

GLOSSARY

data center – a place designated for storing IT infrastructure (servers, data storage devices – e.g., SAN, network infrastructure) and distributing digital data.

fiber optic (cable) – a cable designed to isolate the transmitted light from the external environment, e.g., from sunlight. It is used for fast digital transmissions.

4. Baldé, P. Cornelis, et al. "The Global E-waste Monitor 2024." Hyères, 2024, https://ewastemonitor.info/wp-content/uploads/2024/03/GEM_2024_18-03_web_page_per_page_web.pdf. Accessed 16 September 2024.

Internet — a global computer network composed of millions of local networks and individual computers from around the world connected via network devices communicating through telecommunications infrastructure.

server — a computer designed to serve many users, equipped with a fast processor (or multiple processors), a sufficiently large amount of RAM, and mass storage (usually several hard drives or a system of interconnected drives), with software installed to provide services on a computer network.

LESSON PLAN

Objectives

The students:

- are aware of the existence of the physical dimension of digital infrastructure and its impact on the natural environment;
- know how to use digital technology and devices responsibly and sustainably.

Materials

- computer connected to the Internet
- projector
- A4 sheets of paper
- markers or pens
- printed photos (Appendix)

DOŚWIADCZENIE (10 minut)

Divide the students into groups (four or eight groups – depending on the class size). Give each group one photo from the Appendix. Ask the teams to think about how the elements shown in the pictures are related to the Internet and digital technology.

Photo 1: Mineral mine
Photo 2: Submarine fiber optic cables
Photo 3: Server room
Photo 4: Electronic waste dump

REFLECTION (10 minutes)

1. Ask the groups to share their observations. It will be helpful if you discuss each photograph together. Display the photos one by one and ask the appropriate group or groups for comments.

2. To summarize the exercise and draw conclusions, use the following questions:

   - What is the Internet, really? What elements make it up?
   - What is needed to send and receive data? What devices and places are involved in this process?
   - Where is our data stored when we send it over the Internet?
   - How can the digital infrastructure and devices shown in the photos affect the natural environment?

THEORY (10 minutes)

Using the Overview for Educators section, explain the physical dimension of the Internet. Clarify that in order for us to use the network, send data, watch videos, etc. a massive infrastructure is needed, including enormous data centers and underwater transoceanic cables. Discuss the impact of the physical components of the Internet on the natural environment. Explain what digital ecology is and how each person can consciously use technology to minimize energy consumption and CO_2 emissions.

PRACTICE (15 minutes)

Encourage the students to complete a task. Choose the one you think will most interest them. If you have time, you can suggest more than one.

OPTION 1

In teams, plan an educational campaign for your peers under the slogan “Me and My Devices,” promoting the conscious use of digital technology and encouraging electronic recycling. Consider how you might carry it out. Would you create posters or flyers? Would they be digital or physical? What would be more effective and eco-friendly? Or maybe you will come up with completely different ideas. Write them down and go for it!

OPTION 2 (REQUIRES USING COMPUTERS OR PHONES WITH INTERNET ACCESS)

In pairs or small teams, prepare (in any format) a short quiz for your peers from parallel classes or a different school in your district about the ecological use of digital technology. Come up with questions about energy saving, electronics recycling, data usage minimization, and other aspects of sustainable digital living. Look for interesting facts on the Internet.

OPTION 3

In teams, plan an Eco-Friendly Technology-Free Day during which your class will have the chance to experience life without smartphones, computers, and the Internet. Think about what activities could replace the use of electronic devices. Write down your ideas. Consider what benefits could come from such a limitation. Pick a date and write it down in your calendars. Good luck!









Me in a Network Full of Opportunities

9. Be Eco-Digital – Reduce Your Environmental Footprint!

OVERVIEW FOR EDUCATORS

The so-called **digital carbon footprint** (the environmental footprint of data) is an important aspect of digital technology use that is often overlooked by the average user. This term refers to the sum of greenhouse gas emissions, energy consumption, and the use of natural resources such as water or minerals associated with our digital activities.

It is important to be aware that every online activity, even the smallest, from visiting a website, liking a comment on social media, or sending an email, to watching videos or uploading and downloading photos, generates a digital footprint. The data stored on servers consumes large amounts of energy resources and also emits heat into the environment. It is estimated that:

- a single Google search generates 1.8 g of CO_2;
- sending one email produces 5–6 grams of CO_2;
- *TikTok* emits 2.63 g of CO_2 per minute of use per person, *Reddit* – 2.48 g, *Pinterest* – 1.3 g, *Instagram* – 1.06 g, and *Facebook* and *LinkedIn* each 0.7 g of CO_2. Spending 5 minutes a day on each of the major platforms generates over 20 kg of carbon dioxide annually, equivalent to driving 84.5 km.[1]

It is crucial, therefore, that we raise awareness of the environmental impact of our online activities and make thoughtful decisions about our use of digital technologies. This is a key step toward a more sustainable future.

A few simple actions are enough to reduce your digital carbon footprint:

- Minimize unnecessary Internet searches. The less data traffic we generate, the less energy server and network infrastructure use.
- Choose eco-friendly Internet search engines that provide sustainable solutions, such as using renewable energy or donating part of their profits to environmental causes (e.g., *DuckDuckGo*).
- Before sending large files, such as photos, videos, or documents, consider whether it is really necessary. The smaller the files we send, the less energy is used in the process.
- Regularly clean out our inboxes, archive emails, and unsubscribe from unnecessary newsletters.

1. These calculations were made using the *Social Carbon Footprint Calculator*:
Compare the Market. "Social Carbon Footprint Calculator." Compare the Market, https://www.comparethemarket.com.au/energy/features/social-carbon-footprint-calculator/. Accessed 2 April 2024.

- Use phone navigation only when essential.
- Download music instead of streaming it.
- Limit streaming movies and series in high resolution, as this generates high data and energy consumption. Choose lower-quality streaming when possible.
- At home, switch to Wi-Fi.
- Use apps smartly. Delete those you do not use.
- Turn off features on your smartphone that you do not use.
- When running your own blogs and websites, use green servers, choose eco-friendly hosting services, light fonts, footers without images, and post light animations.
- Limit online meetings, especially those that use video.
- Turn off your computers, laptops, smartphones, and tablets when they are not in use.

GLOSSARY

digital carbon footprint (environmental footprint of data) – the sum of greenhouse gas emissions, energy consumption, and the use of natural resources such as water or minerals associated with our digital activities.

server a computer designed to support multiple users, equipped with a fast processor (or multiple processors), large RAM, and storage (usually multiple hard drives or a system of connected drives), with software installed to provide services over a computer network.

video streaming transmitting audio and video data over the Internet. In streaming, the content is not played from the user's computer but is continuously downloaded from other computers on the network.

LESSON PLAN

Objectives

The students:

- understand that every online interaction leaves a digital footprint that affects the natural environment;
- are able to minimize their own digital carbon footprint by making conscious choices about their use of the Internet and electronic devices.

Materials

- sheets of paper (preferably A4)
- pens
- a computer with Internet access and a projector
- smartphones

EXPERIENCE (10 minutes)

Distribute sheets of paper to the students. Ask each person to reflect on how they use the Internet daily and to create a **personal map of their online activities**. They can include drawings, notes, or icons on the map.

To help students complete the task, provide **guiding questions**. Write or display them on the board:

- How much time do you spend on the Internet and using digital devices every day?
- Do you connect to the Internet via Wi-Fi or mobile data? What does it depend on?
- How many and which apps do you use most often?
- Why are these particular apps important to you?
- What types of data do you send and receive every day? Are these mostly text messages, photos, videos, files, or something else?
- How many messages, photos, videos, and other files do you send and receive daily? Try to count or estimate.

When the students have finished their maps, ask them to pair up or form groups of three and discuss them.

REFLECTION (15 minutes)

Invite volunteers to present their online activity maps. Discuss together which apps you use most often and how much data you send each day. To draw attention to the fact that every online activity generates a digital carbon footprint, ask:

- What does it mean to you that data is transmitted over the Internet?
- Can sending data have an impact on the environment? What kind of impact?

THEORY (10 minutes)

Using the Overview for Educators section, explain to the students what the digital environmental footprint is. Talk about how our online actions affect the natural environment. Share interesting facts about the digital carbon footprint generated by various online activities. Ask the students what specific actions we can take to send less data while still enjoying the Internet. Present a full list of actions.

PRACTICE (10 minutes)

OPTION 1 (EASIER)

Ask the students to check their smartphones and review the apps installed on them. Encourage them to delete any that they do not use.

OPTION 2 (MORE CHALLENGING)

Ask the students to check their smartphones and see which apps require access to data such as location, photos, or contacts. Encourage them to disable access to data that is not essential for any given app to function.



Tip

If time permits, conclude the lesson with a discussion. Ask the students if they think the digital environment and the natural environment are equally important when it comes to our online actions. Ask them to provide arguments.

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NOTES

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ISBN 978-83-67621-23-6