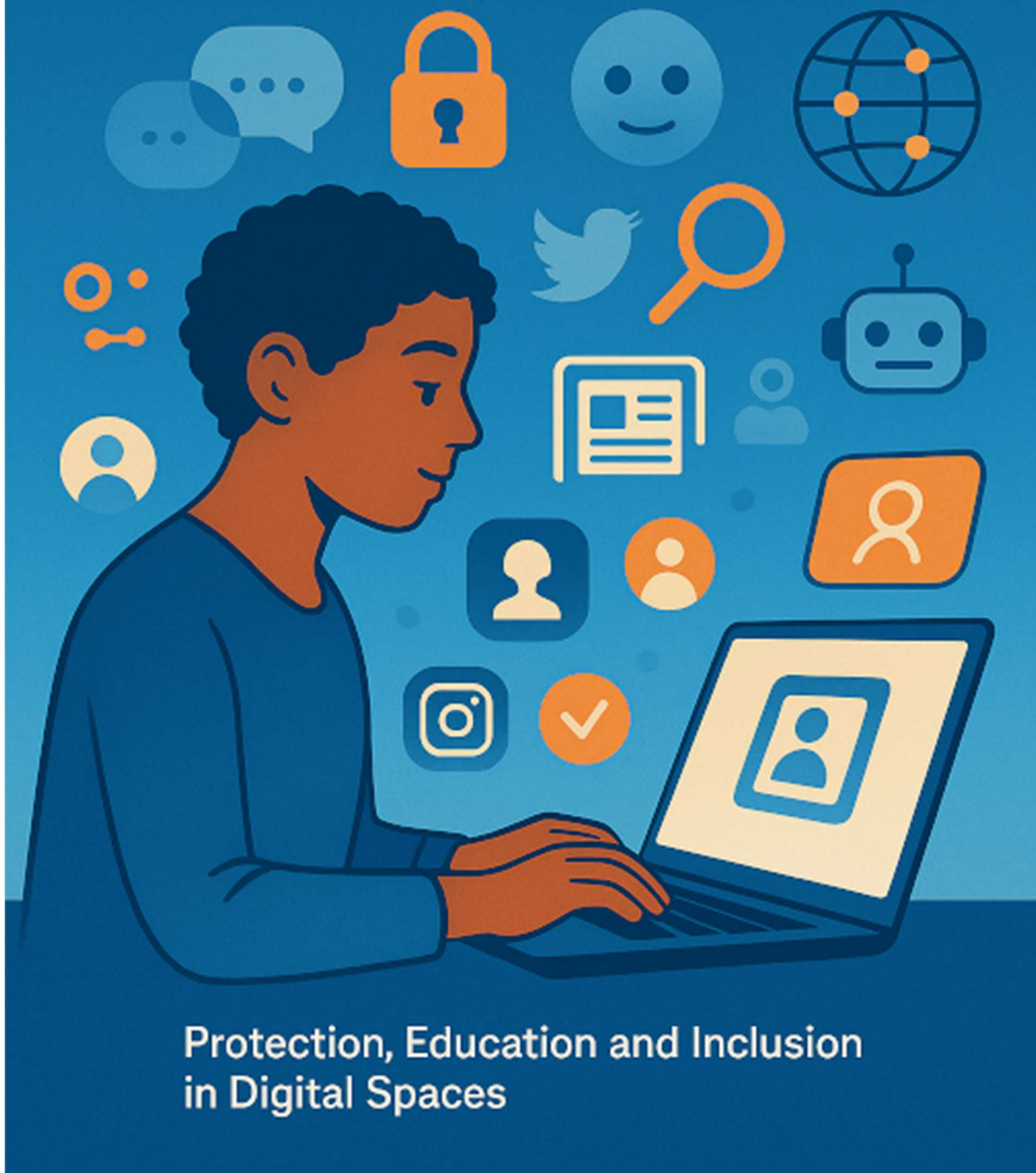


# Cyberfairness

A Guide to Conscious  
Digital Media Use



Protection, Education and Inclusion  
in Digital Spaces

(Image creation with AI ChatGPT -4o, May 12, 2025)





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## Introduction

Digital media increasingly shape the upbringing and everyday lives of young people. They communicate, learn, create, and experience online – and in doing so, they also encounter risks such as cyberbullying, misinformation, identity conflicts, and digital overload. These challenges are not only burdensome on an individual level but are also socially relevant. They raise essential questions: How can we help young people navigate digital spaces with confidence, health, and fairness?

This is where the Cyberfairness project comes in: it aims to contribute to greater justice, participation, and resilience in the digital space. The main focus is on supporting youth work professionals. This guide provides them with practical tools, knowledge, and methods to work with young people on the following topics: cyberbullying, fake news, digital identity, and digital health.

The first part of this guide provides the contextual background, presenting the societal significance and current developments surrounding cyberbullying, media education, and



prevention. It helps to understand cyberbullying as a phenomenon, stay up to date with the latest research, and support and sensitize young people competently in difficult situations. This includes legal aspects, emotional impacts, effective strategies, and collaboration with the right partners and institutions.

In the second part, three learning areas from the European competence framework *DigComp 2.2* were selected. They support the development of digital resilience, enabling young people to critically question media, take a confident stance, and actively counteract destructive dynamics online – such as manipulation, bullying, or overload.

This guide was developed as part of a German-Italian partnership between **WeTeK Berlin gGmbH** and **Associazione Formazione 80**, funded by the Erasmus+ program. The project ran from April 2024 to May 2025. The starting point for the learning materials was the ComDigi S\*LXP model, which was developed and adapted within the *DigiTaKS* project. The guideline is available as OER (Open Educational Resources) under the **licence cc by 4.0** – for self-study, team training, or direct work with young people.

This guide was translated using AI (ChatGPT-4o). If you notice any mistakes while reading, please let us know. You can find our contact information at the end of the guide.

## PART I CYBERMOBBING / CYBERBULLING

### Introduction

Bullying can be defined as repeated exposure, over time, to offensive actions carried out by one or more peers (Olweus, 1986). It is characterized by some key aspects: *intentionality, lack of empathy, persistence, and a power imbalance between the bully and the victim*. These traits distinguish it from other forms of peer conflict.

Currently, with the dominance of social networks in interpersonal relationships—especially among younger generations—more than one-third of bullying now occurs online. The digital world, while a space for connection and opportunity, has thus become fertile ground for risks such as cyberbullying, cybergrooming, and other cybercrimes targeting minors and young adults, as well as for the spread of misinformation (fake news).

According to a 2022 European Union report, around 18% of young Europeans reported having been victims of cyberbullying. Statistics vary significantly from country to country: in Italy, 20% of adolescents have experienced cyberbullying; in Spain, about 15% of students reported cyberbullying incidents; in Germany, the situation is similar to Spain's, with a rate of 14%.



Gender-wise, girls tend to be more affected than boys. For instance, 22% of Italian girls reported experiencing cyberbullying compared to 17% of boys. Additionally, adolescents from lower socioeconomic backgrounds were identified as being more vulnerable to these forms of online abuse.

Consequently, this phenomenon represents a form of psychological violence perpetrated online, with devastating effects on self-esteem and mental health. Unlike traditional bullying, the digital dimension makes aggression persistent (content remains online indefinitely) and amplifies the victim's isolation.

Over recent decades, this issue has grown increasingly prominent across Europe, particularly among youth aged 15 to 25. These phenomena not only impact young people's psychological well-being but also carry significant socio-cultural implications, presenting major challenges for policymakers in both education and public health sectors.

Recent studies on cyberbullying—including those conducted by the World Health Organization (WHO) as part of the *Health Behaviour in School-aged Children (HBSC)* project—have revealed alarming findings. The research, which surveyed adolescents aged 11 to 15 across multiple European countries, showed that 12% of European teens admitted to engaging in cyberbullying. Notably, cyberbullying is now a growing phenomenon compared to traditional bullying.

Similarly, multiple studies reveal an evolution in victim demographics. Whereas girls previously represented the majority of cyberbullying reports, recent data shows a rising number of boys coming forward as victims. Furthermore, research indicates many youth now occupy dual roles as both victims and perpetrators of online harassment - a steadily increasing trend causing significant concern. (Source: "Cyberbullying Among Youth: A Growing Phenomenon Affecting Over One Million Adolescents" - *Quotidiano Sanità*)

Beyond cyberbullying, younger generations report experiencing various forms of violence, particularly: verbal abuse, psychological violence, catcalling, bullying, and sexual harassment. While both boys and girls demonstrate awareness of online risks and prevalent dangers, this knowledge alone proves insufficient to prevent their involvement in such situations.

Authorities are deeply concerned by these phenomena due to their severe psychosocial consequences on youth, including: erosion of self-esteem, loss of trust in others, social anxiety and panic attacks, social withdrawal, depression, eating disorders, impaired concentration and academic underperformance, self-harm behaviors, school absenteeism.

All studies underscore the urgent need for coordinated interventions involving both families and public/private organizations – particularly those engaged in educational, cultural, and social activities. These efforts should pursue two key objectives: on the one hand creating safer online environments; on the other hand implementing comprehensive digital/media literacy programs with European-scale implementation rather than just local or national reach.

In Italy, faced with increasing cyberbullying cases, the Parliament discussed the matter and approved Law No. 71/2017. This law defines cyberbullying as "*any form of pressure, aggression, harassment, blackmail, insult, denigration, defamation, identity theft, unauthorized data alteration, unlawful acquisition, manipulation, or illicit processing of minors' personal data*



*carried out via digital means. This includes the online dissemination of content targeting the minor or their family members, where the primary intent is to isolate a minor or group of minors through severe abuse, harmful attacks, or ridicule."* The law adopts a comprehensive approach, engaging all relevant stakeholders. Rather than being purely punitive, it combines educational and awareness-raising measures to penal sanctions by introducing new criminal offenses.

In Germany, according to research by the *Bündnis Gegen Cybermobbing* (Alliance Against Cyberbullying) – an organization dedicated to awareness and action against digital abuse – over two million students are victims of cyberbullying. Most cases occur in schools and the *Cyberlife V* study reveals that 70% of teachers reported being unable to manage the phenomenon in 2023 (*versus 42% in 2022*); while 12% of surveyed children admitted to have experienced online bullying at least once in their life (*Source: Bündnis-gegen-cybermobbing.de*)

From a legislative perspective, Germany addresses cyberbullying through a combination of federal and state laws. While no specific cyberbullying law exists, prosecutors apply relevant provisions from the German Criminal Code (Strafgesetzbuch - StGB), in particular: art. 185 Insult (*Beleidigung*); art. 186 Defamation (*Üble Nachrede*); art. 187 Slander (*Verleumdung*); art. 201 Violation of privacy (*Verletzung des höchstpersönlichen Lebensbereichs*).

Germany further complements its legal framework with the Telecommunications Act (Telekommunikationsgesetz – TKG), which establishes obligations for telecommunication and internet service providers on management of harmful contents and on the protection of users, and with Data Protection Laws (Datenschutzgesetze). Both these laws may be relevant in cyberbullism cases.

Some federal states (Bundesländer) have enacted specific anti-bullying legislation that explicitly addresses both bullying and cyberbullying, as well, with preventive measures and sanctions

Nevertheless, there is growing consensus on the need to establish a specific criminal offense for cyberbullying

## Chapter 1: Glossary and definition of media education (media literacy) for young people

**Cyberbullying thus emerges as a form of digital violence** that manifests in diverse ways, often intersecting with other types of online abuse. A clear operational definition proves essential to distinguish between these overlapping phenomena.

**Below is a glossary** to help understand the **multiple facets and various manifestations** of this phenomenon.





**Cybergrooming:** a predatory practice where adults target minors or young adults online for sexual exploitation. Perpetrators often initiate contact through seemingly harmless interactions (compliments, friend requests) to establish trust before escalating to abusive behavior.

**In 2023 a EU Survey pointed out that 10%** of Europeans aged 15–25 reported unwanted contact from adults online. However, statistics show significant differences among nations: in France the rate of unwanted contacts is of about **12%, in the UK it amounts to 8% while in the Netherlands it reaches 5% of the target population.**

**Girls are again more Vulnerable than boys; in the UK** about 10% of girls experienced grooming attempts that is to say about twice as often as boys (**6%**). On this matter, **socioeconomic factors play a major role:** in fact, youth from lower-income households showed higher exposure risks

**Flaming:** derived from the literal meaning "in flames," this term describes **the deliberate posting of hostile, vulgar, or violent messages** – particularly in digital spaces facilitating real-time user interactions (e.g., forums, comment sections, live chats). Source: Accademia Civica Digitale ([www.accademiaticivica digitale.org](http://www.accademiaticivica digitale.org))

**(Cyber) Harassment:** A form of sustained digital abuse characterized by **offensive messaging** which distinguishes from flaming for its persistence and repetitiveness over time and for **asymmetry** between the bully and the victim (the cyberbully is stronger than the victim)

**Denigration:** The deliberate act of **damaging someone's reputation online** through spreading false or malicious claims, sharing compromising photos/videos or orchestrating smear campaigns. It requires an audience to inflict harm.

**Impersonation:** A form of digital identity theft involving the **unauthorized access in someone's account and acting under false identity.**

**Outing and Trickery:** **online dissemination of private and possibly embarrassing information** obtained in a private and confidential environment.

**Exclusion:** deliberate exclusion of individuals from an online group whether it is a chat or an interactive game. This might have serious consequences on the social and relational life of the victim also off line.

**Cyberbashing (Happy Slapping):** aggressions originating offline in the real life that continue online. As an example sharing online with other users videos of the beating of the victim.

**Sexting:** messaging through smartphones or internet of sexually suggestive images or sexually explicit behaviours

**Revenge Porn:** non consensual sharing online or on social networks of pornographic materials, through images and videos, aimed at harming, humiliating or blackmailing the portrayed person.



**Trolling:** act of posting online **provocative, off-topic or offending messages in order to create confusion and promote arguments and fights.**

**Cyberstalking:** online behaviours acted by perpetrators defined cyberstalkers with the aim of prosecuting the victim by means of repeated requests of contact, sending of unwanted messages, often including threats and offences. The objective of the cyberstalker is to harass and torment the chosen victim.

**Fake News:** partially or completely false pieces of news designed to manipulate public opinions, to feed hate or prejudice, or used for other specific (i.e. economic, political, scientific) aims as well as used to harm, discredit and slander the reputation of individuals, social categories, institutions or organizations. Fake news are disseminated mainly through the web and social media and are generally easily accessible through digital devices. This makes Fake news particularly apt to be intentionally or unintentionally diffused.

According to the Digital News Report by Reuters Institute in 2023 about 40% of Europeans aged 15-25 encountered fake news on social media. The percentage varies significantly among nations

- **Sweden:** the rate is 35%;
- **Poland:** the rate reaches 50%;
- **Greece:** the rate is about 45%

The diffusion of fake news affects in a uniform way both boys and girls. However, there is a higher prevalence in urban areas than in rural ones. People with higher income background show more critical thinking towards information received online.

One of the most effective strategies to combat online violence and fake news is media and digital literacy. This encompasses: the ability to use digital tools responsibly as well as the capacity to access, analyze, evaluate and create media contents.

Media education, also called media literacy is a fundamental educational process that goes beyond basic digital skills. It aims to foster critical thinking in young people regarding the use and understanding of mass communication media. Educators, teachers and families are key stakeholders in this process.

The main Objectives of Media Literacy are:

- **Developing Critical Analysis Skills: develop critical analysis on media contents and on the risks associated with them**
- **Transfer essential concepts of Mediology** (Mediology): understanding various communication systems and their effects on social organisation, on culture and on behaviours, as well as the technology used.





- **Enhance the capacity to use digital contents: being able to effectively use contents offered by communication medias**
- **Foster Creative Media Production: promote creativity and production of original contents**
- **Promote Informed and active Citizenship:** prepare youth and students to engage actively in society through understanding media dynamics and their impact on culture and public opinion. Support young people to discern reliable information from deceptive contents such as fake news and propaganda.
- **Encourage digital responsibility:** educate youth on the risks of cyberbullying and on the importance of safe and respectful online interactions.

## Chapter 2: Experiences in media education with young people and expectations of young people regarding participatory formats

For educators and teachers, guiding young people through the dangers and opportunities of the digital world requires a holistic approach: not just rules, but critical awareness, empathy, and collective responsibility. Young adults (15-25 years old) are in a phase of identity construction where digital technology is an integral part of their social life. Intervening means not demonizing technology, but transforming it into a tool for growth through education that combines technical skills, digital ethics, and emotional support.

Schools naturally play a leading role in media literacy for girls and boys, starting from primary school, but the importance of family and extracurricular contexts should not be underestimated, along with the need for an integrated approach among these.

At school, it is necessary to integrate specific modules dedicated to media education into the school curriculum to teach students how to critically analyze media content and create media responsibly. Additionally, promoting continuous teacher training on these topics is essential.

**Teachers can use resources like videos, articles, and practical activities to engage students and develop their skills.**

From a practical perspective, experiences in media education with young people reveal that extracurricular activities play a crucial role in developing personality, self-determination, and



social participation. Digital socio-cultural animation can occur both in person and online, offering young people the opportunity to use media creatively and critically address their use.

**Inclusion and experience are key concepts in media education for young people.** Using participatory methodologies, such as workshops and long-term programs, can contribute to creating a more inclusive society that respects diversity. Involving young people in practical activities, such as video production and discussing relevant topics, can increase their interest and participation.

**Over the past few years, numerous projects have been implemented in this area, many of which have been funded by European funds and involved participants from various EU countries.** Among the projects carried out in schools, we can mention, for example, the production of an eBook by students from the Mazzini Classical and Linguistic High School in Genoa. The eBook includes interviews with 150 schoolmates on topics such as fake news, cyberbullying, sexting, privacy, and copyright.

The eBook, titled "The Web - A World to Explore with Awareness and Responsibility," is a 50-page report that includes tables and graphs summarizing the responses of the 150 adolescents interviewed. It highlights two factors: on the one hand, the ongoing risks (such as a certain carelessness in sharing passwords with third parties), and on the other hand, the fact that the sensitization process in schools is yielding results. Teachers worked with the students on five themes: fake news, cyberbullying, sexting, privacy, and copyright.

Regarding fake news, students are aware that social media are fertile ground for disinformation and that the goal of those who create most of this content is to profit, discredit people, cast doubt on situations and events, or even engage in propaganda. Most students defend themselves from this danger by consulting multiple sources and performing cross-checks to ensure they are not facing fake news.

The report also emphasizes the importance of obtaining consent from people appearing in photos published on social media (many students are unsure if they have ever violated someone's privacy), being very cautious when exchanging content during sexting—especially regarding revenge porn—and addressing cyberbullying.

Regarding cyberbullying, 25% of the students admitted of having experienced unpleasant episodes while navigating the web: "This means," the report reads, "that the school community must commit more to intercepting this discomfort and helping those who are the object of aggressive behavior to talk to someone, such as a parent or teacher." "Social media like Facebook and Instagram," the students write, "should exercise greater controls so as not to compromise people's experiences, because social media can be a very ruthless place."

Another interesting experiment is the European project *Escape Fake*, which aims to counter the spread of disinformation, particularly among young generations. Co-financed by the European Union through the Creative Europe program, it was developed by an international team led by Polycular (Romania) with partners Expert Forum (Romania), LaFabbrica (Italy), and ProProgressione (Hungary).



The project includes a free AR mobile video game for use in schools, a didactic toolkit, and a free 30-hour course for European teachers.

**In designing and implementing media literacy projects, it is important to consider the expectations of the young participants.** Girls and boys prefer real content that reflects their experiences, formats that allow active participation and include everyone's voices, and a practical rather than theoretical approach to acquiring new digital skills.

## Chapter 3: Methodological recommendations and learning objectives in the planning of activities focused on the topics of cyberbullying, online grooming and fake news

In Italy, as previously mentioned, the fight against bullying and cyberbullying is mandated by Law 71/2017, which establishes a central role for schools in addressing these issues. The Ministry of Education (MIUR) has coordinated a working group to draft an integrated plan and initiate monitoring interventions. In the educational sphere, efforts to combat bullying, both online and offline, are implemented through policies under the "Better Internet for Kids" initiative, as part of the National Digital School Plan and the Guidelines for Prevention and Contrast to Bullying and Cyberbullying.

The Guidelines aim to provide principles representing minimum quality standards that public and private actors must adhere to when implementing school initiatives. These principles are based on international scientific literature and derive from an analysis of preventive interventions developed through various experiences in Italy.

The content is divided into seven areas:

1. **Adoption of an integrated and comprehensive strategy;**
2. **Implementation of prevention policies;**
3. **Reporting and addressing potentially risky situations;**



4. **Assessment of needs and definition of objectives;**
5. **Methodological approach;**
6. **Evaluation of interventions to promote proven effective practices;**
7. **Protection of personal data.**

The integrated strategy involves all school stakeholders (teachers, students, parents, administrative staff), emphasizing communication and collaboration between schools and families. It includes actions such as adopting e-policies, developing a cross-disciplinary digital curriculum proposed by teachers, and creating training plans on online-related topics.

The methodological approach promotes specific knowledge for all school actors regarding the use of digital technologies through active and participatory training methods. These methods enable peer-to-peer learning processes and self/peer empowerment. For students, Digital Civic Education (ECD) will be crucial, focusing on understanding risks and opportunities in digital environments while fostering respect, human dignity protection, and combating hate speech, violence, and discrimination both online and offline.

Another key aspect is encouraging critical thinking among students for a responsible use of digital technologies and fostering accountability for their actions in the digital realm.

To make the internet safer for young users and promote its positive use, MIUR has launched the "Generazioni Connesse" initiative, supported by the European Commission. This initiative provides schools with practical tools ready-to-use such as:

- **Training activities** (online and in-person) specifically designed for school communities (teachers, children, parents, educators).
- **Information campaigns** conducted in collaboration with the State Police to deepen knowledge about safe internet navigation.

All school community members must be involved in promoting conscious internet use at school and home through discussions within schools to establish shared behavioral rules aimed at preventing bullying and cyberbullying. Collaborative networking actions with local institutions are encouraged.

Each school designates a teacher as a Coordinator who undergoes training to lead prevention initiatives in collaboration with law enforcement agencies, associations, and youth centers in the area. Active roles for students, families, and alumni are promoted through peer education activities.

Additionally, "iGloss@ 1.110," a glossary created by the Department for Juvenile Justice and Community, defines deviant online behaviors along with their social-penal repercussions to enhance understanding of harmful online conduct.



## Chapter 4: Methodologies for using participatory formats such as through the use of digital learning tools

"If you tell me, I forget. If I see, I remember. If I do, I learn."

From various empirical experiences, it is evident that, from a methodological standpoint, the following aspects are crucial in interventions against cyberbullying in educational settings:

- **participatory and engaging approach** facilitated by an informal context: a conversation where concepts are conveyed not by an adult "explaining it to you." No to frontal lessons with an expert in the classroom.
- **use of playful tools:** games that relate to the experiences of boys and girls.
- **creation of experiential and emotional dynamics:** the topic becomes interesting when it shifts from theoretical to personal and touches the emotional sphere.
- **brevity of the courses:** meetings are segmented, never more than two consecutive hours.
- **use of recognizable language:** demonstrating knowledge of their world, using youthful slang.
- **Attention to classroom dynamics:** evaluating how to interact and use irony.
- **Flexibility of interventions:** every group is different, and it is not possible to communicate in the same way or achieve the same objectives.
- **Focus on empowerment:** what is posted online becomes part of the web with consequences even in the future. Technologies affect all aspects of life, for both adults and children. Being an example for younger ones is essential.
- **mention of the legal aspects of online behavior:** this can be considered a crime!
- **Involvement of parents and teachers:** the example is fundamental, and rules must be shared.
- **Encouragement to reflect and question topics that young people think they master:** the choices you make define who you are. It is necessary to think about the future because everything is now in the public domain.



The participatory approach is the main element for capturing the attention of young people: constant and attentive interaction, which animates and stimulates discussion with the help of games and practical examples from daily life, helps make the topic concrete and therefore interesting.

Experiential dynamics can touch the emotional sphere, and in this way, through the emotional aspect, the material shifts from theoretical to personal (e.g., when showing the tracking of movements on Google Maps).

Technology is involved in all aspects of life, and knowing how to use it is a matter that concerns everyone: adults, children, and teenagers. "All of us live experiences where digital environments and physical contexts are interconnected; we live in continuous interaction between material and analog reality and virtual and interactive reality. This new dimension has been defined as 'onlife' (L. Floridi)."

The awareness of this overlap between real and virtual by young people is very important and constitutes the first step towards their empowerment. Everything published online is disseminated in a vast telematic circuit and potentially remains there forever. The dimension of time has changed: the time we spend with people has changed; everything is fast, and every question seems to find immediate answers online. It is necessary to think about the future because everything is now in the public domain, and this has consequences. Every choice, from online purchases to publishing images or reels on social media, impacts each person's life and defines their personal profile today and tomorrow.

The challenge of the "onlife" dimension naturally also concerns adults and poses a significant challenge to parenting. The example set by parents is fundamental, and the rules for using various devices (PCs, tablets, smartphones) must be explained and shared, creating an environment of listening for their children. More than ever before, today with new technologies, it is not possible to control adolescents and protect them unless through constant and attentive dialogue.

Parents must be well-versed in digital tools, keep up with continuous innovations, and know the associated risks, building alliances with other reference adults (relatives, friends, teachers, educators...). Good media education can only occur with network work between school, family, and various territorial entities that can intervene in different phases: experts such as local police and educators in prevention interventions, psychological and legal support services in cases of abuse.

Lastly, knowledge of legal norms can help have a complete picture of possible crimes and possible methods of reporting and compensation.





## Sources

- Report “Health Behaviour in School-aged Children (HBSC) -A focus on adolescent peer violence and bullying in Europe, central Asia and Canada” , OMS/Europe, second volume, 2022 disponibile sul sito <https://iris.who.int/handle/10665/376323>
- Studio ESPAD@Italia 2024 del Consiglio Nazionale delle Ricerche CNR-IfC: <https://www.ifc.cnr.it/index.php/it/news/998-i-dati-espad-italia-sul-cyberbullismo-tra-i-giovani>
- “iGloss@ 1.110, l'Abc dei comportamenti devianti online”, Ministero della Giustizia disponibili sul sito: [https://www.giustizia.it/giustizia/it/mg\\_2\\_5\\_12.page](https://www.giustizia.it/giustizia/it/mg_2_5_12.page)
- Legge 29 maggio 2017 n.71 disponibile sul sito:  
<https://www.gazzettaufficiale.it/eli/id/2017/06/3/17G00085/sq>
- consultata anche traltime il sito: <https://www.savethechildren.it/blog-notizie/la-legge-contro-il-fenomeno-del-cyberbullismo-5-punti>
- Digital News Report -Reuters Institute 2023 - Ergebnisse für Deutschland, <https://leibniz-hbi.de/hbi-publications/reuters-institute-digital-news-report-2023/>
- Linee guida “Bullismo e cyberbullismo - l'azione delle polizie locali per la prevenzione nelle scuole”, Polizia di Stato disponibili per il download sul sito <https://bur.regione.emilia-romagna.it/area-bollettini/n-175-del-11-06-2024-parte-seconda/direttiva-per-lattuazione-del-modello-di-polizia-di-comunita-ex-art-11-bis-lr-24-2003-ss-mm-ii/anteprima> ed anche sul sito: <https://www.mim.gov.it/linee-guida-prevenzione-e-contrasto>
- Decreto Ministeriale n. 18 del 13 gennaio 2021, Linee di orientamento per la prevenzione e il contrasto dei fenomeni di Bullismo e Cyberbullismo,MIUR disponibile sul sito: <https://www.mim.gov.it/-/decreto-ministeriale-n-18-del-13-gennaio-2021>
- e-book “Il web - Un mondo da esplorare con consapevolezza e responsabilità” a cura del Liceo classico e linguistico “ G. Mazzini” di Genova disponibili per la consultazione al sito: <https://www.calameo.com/read/00372680376105c0e5525>
- Accademia Civica Digitale: [www.accademiaticivicaigitale.org/](http://www.accademiaticivicaigitale.org/)  
<https://contentmakers.it/progetti/escape-fake/>
- European Union: “Better Internet for Kids” - <https://better-internet-for-kids.europa.eu/en>
- Cyberlife – Spannungsfeld zwischen Faszination und Gefahr Lehrkräfte-Studie, 2024, <https://buendnis-gegen-cybermobbing.de/aktivitaeten/studien.html>



# PART II: Digital Competence – self-study units

## 1. Fake News

- Determine the motives for creating and spreading fake news.
- Apply techniques and strategies to verify facts.

### Introduction

You scroll through your social media feed and come across a headline that immediately catches your curiosity. It is an unbelievable news story. You can't resist clicking on it to read more. However, the more you read, the more you doubt the accuracy of the information. You want to believe the headline, but something seems off.

Now would be a good time to delve into "fake news". Fake news refers to false reports, primarily disseminated in the digital realm.

A study by MIT examined the spread of tweets between 2006 and 2017 and found that fake news spread faster and further than real news. The authors also concluded that people, not machines, are the ones who spread false news the most.

In fact, fake news has been around much longer than the internet. The oldest known fake news today was disseminated by Pharaoh Ramses II, [who wanted to cover up his ignominious defeat in the war against the Hittites](#). Although the pharaoh himself barely escaped with his life, he commissioned stonemasons across the country to carve the great victory of the Egyptians onto columns and arches. Who could have verified this?

In the digital age, fake news spreads rapidly across all channels, causing confusion and mistrust among people. And because our technologies are getting better and better, it is becoming increasingly difficult to distinguish between real and fake information.

[Short video on 4 historical false reports with significant impact.](#)



### Thought-provoking

*How do you think the way fake news is created and spread has changed thanks to the widespread use of the internet and social media compared to the past? Reflect on your thoughts and discuss them with others to hear different perspectives and expand your own ideas.*

## Definitions

Fake news, misinformation, disinformation, false information: All these terms refer to similar phenomena. Information is shortened, distorted, and misrepresented in some way. In fact, the terms are often used synonymously, but they have different meanings.

**Misinformation:** False or incomplete information that is spread unintentionally. Misinformation can result from human error, technical failure, or lack of knowledge. The authors of misinformation usually do not have the intent to deceive.

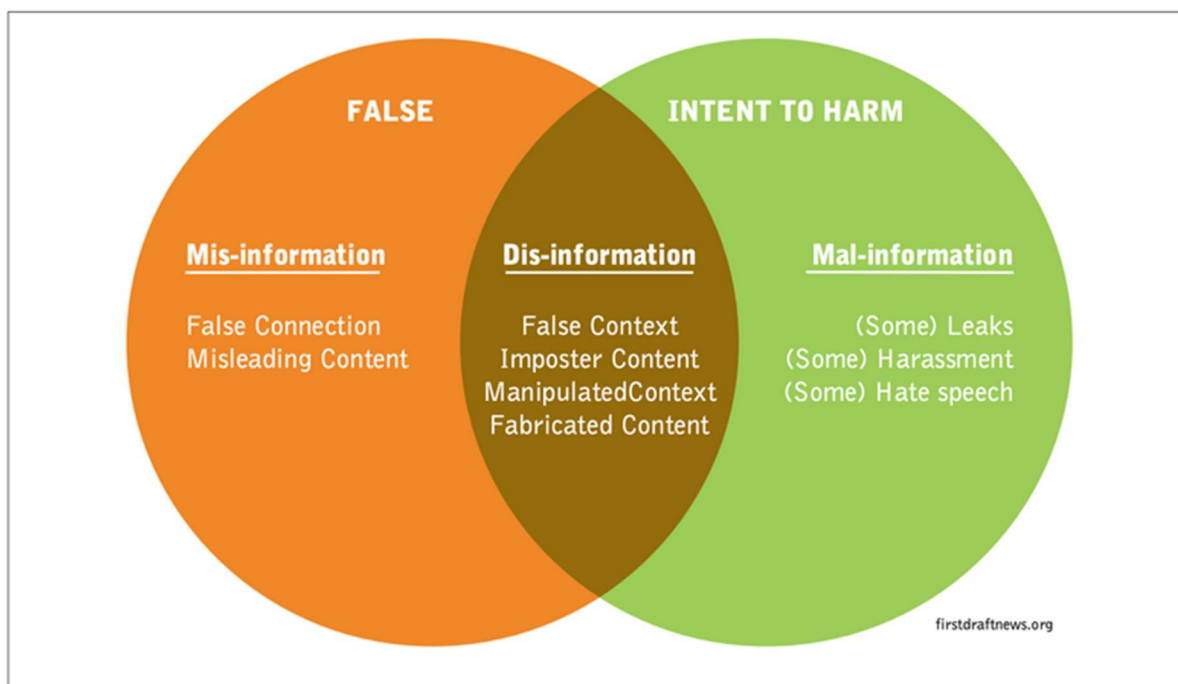
**Disinformation:** A specific type of false information in which intentionally false information is spread to achieve certain goals. Disinformation is often used by governments, political parties, or other organizations to advance their agenda or discredit their critics.

**Fake News:** Fake news that is invented or falsified to tell a specific story or spread a specific opinion. Fake news is often intentionally spread to damage the reputation of individuals or organizations or to achieve political or ideological goals.

The differences between these terms lie in the intent behind the spread of information, as well as the accuracy and completeness of the information itself. While misinformation is



often spread unintentionally, false information, disinformation, and fake news have a deliberate agenda behind them.



**Source:** Heinrich Böll Foundation 2020

URL: [https://www.boell.de/sites/default/files/2020-08/200825\\_E-Paper3\\_DE.pdf](https://www.boell.de/sites/default/files/2020-08/200825_E-Paper3_DE.pdf)

## Origins of Fake News

The deliberate handling of false information is becoming ever more relevant, as the impacts can be far-reaching and harmful. From malicious actors spreading false news to social media users making unverified claims. But how can it come to the spread of fake news? Let's take a look at the origins of fake news.

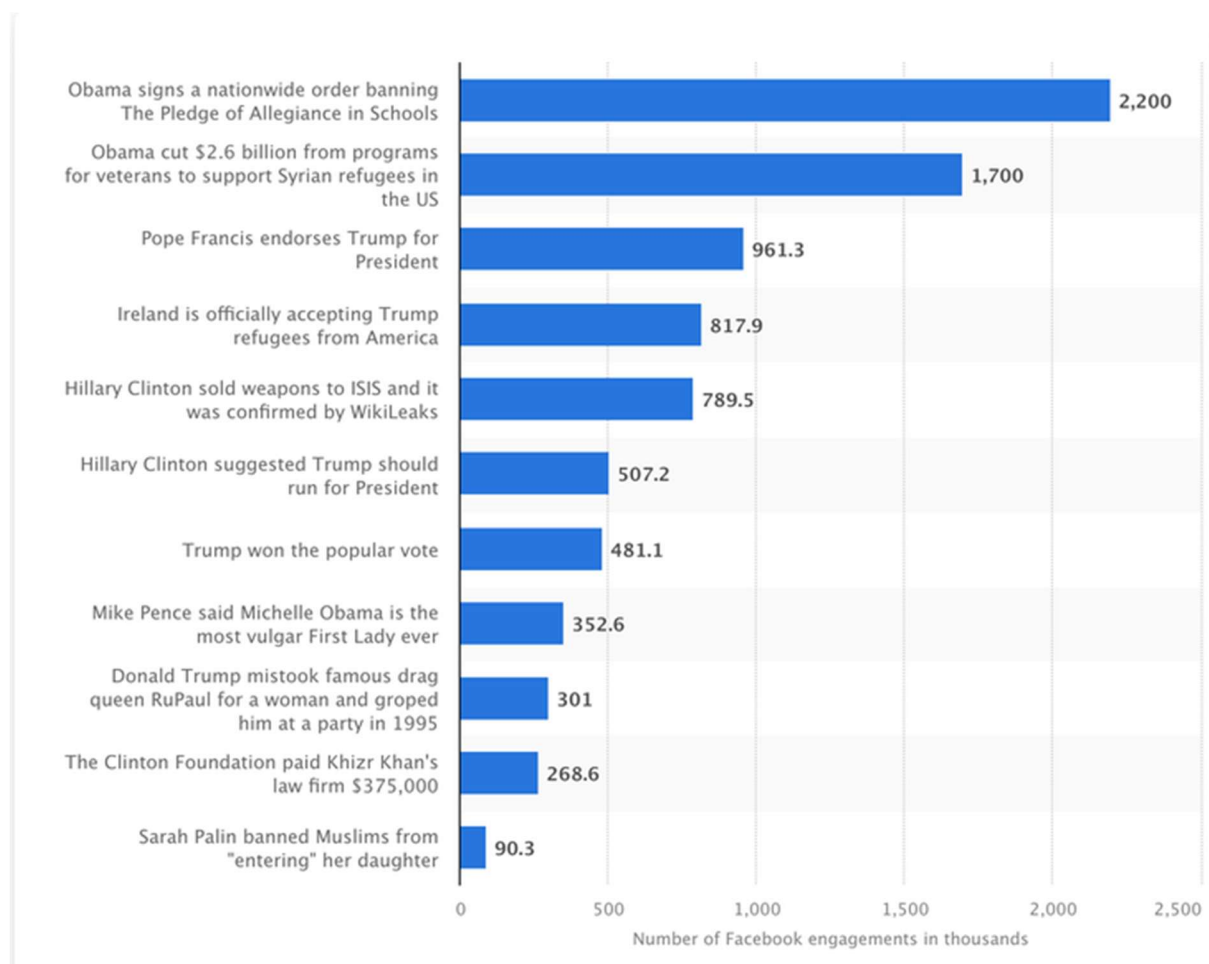
### Political Propaganda and Disinformation Campaigns

Sometimes, fake news and smear campaigns are commonplace in political campaigns. Identifying who spreads fake news is difficult, as the information can be backed by a variety of interest groups, organizations, or even individuals.

Political entities, governments, and interest groups create false information to manipulate public opinion and further their own agendas, gaining an advantage over their opponents and creating the appearance of greater support than is actually the case. More on opinion manipulation for profit.



This statistic shows the most popular fake election stories in the USA in 2016, based on Facebook engagements.



**Source:** Most popular fake election stories in the United States in 2016, by Facebook engagement

## Financial Motivations

Some individuals and organizations create fake news to earn money through advertising revenue or to drive people to click on links to their websites. For example, the spread of false health and conspiracy theories related to COVID-19, which were used to sell unproven and potentially harmful products to consumers.

## Unintentional spread of false information due to lack of media literacy

Many people still lack the knowledge, education, or ability to critically evaluate content. They "like", post, and share fake news without understanding the potential dangers. How good are you at spreading fake news? Try it out in the Bad News Game.



## Traditional Media Channels

Despite their reputation for delivering reliable information, traditional media such as newspapers, television, and radio stations sometimes fall for fake news and disseminate it to their audience. The pressure to be the first to bring a story, the desire to boost ratings, or the lack of resources for fact-checking can contribute to this. For example, in the case of Spiegel reporter Claas Relotius.

## Fake News Detection

The CRAAP test is a practical checklist developed by librarians at California State University-Chico to evaluate the credibility and reliability of information. CRAAP stands for the following criteria:

### Currency

The timeliness of the information, when it was published or updated. Is the information still current, or have new details become available since then?

### Relevance

The importance of the information in relation to the topic and the purpose for which the information is needed. Does the information answer your question?

### Authority

The source of the information and the qualification of the author. Is the author an expert in the field, or does the information come from an unreliable source? Are there imprint or contact details?

### Accuracy

The reliability and truthfulness of the information. Has the information been fact-checked, or is it based on opinions or personal beliefs?





## Purpose

The reason the information was created, including whether it aims to inform, educate, sell, or persuade. Is the information objective or influenced by a particular opinion?

## Critical Thinking with CRAAP

Max stumbles across a tweet that claims a certain COVID-19 vaccine has severe side effects. Being vaccinated himself, Max is worried and wonders if the news is true.

- Max checks the currency, looking at the tweet's date. The tweet is from last week. He then checks if the post is current. The post is from February 2021.
- He quickly checks relevance by questioning his own interests and needs concerning COVID-19.
- Max checks the authority, investigating the source of the post and whether the person has references about COVID-19 vaccines. It turns out the person is a blogger who writes about various topics.
- Next, he checks the accuracy and looks for other trustworthy sources to confirm if the news is true or false. Max finds no reputable source agreeing with the claims.
- Max checks the purpose, considering the intention behind the post.

Max concludes the news is not current, comes from an unreliable source, and contains conflicting information compared to other more trustworthy sources. He shares his findings and decisions with friends and family to ensure they're well-informed.

## Using Fact-Checking Websites and Tools

These tools help verify facts and figures and identify potential biases or false information.

**Correctiv.org** - A German non-profit organization offering independent journalism and fact-checking services.

**Mimikama** - An Austrian non-profit organization focusing on debunking fake news, hoaxes, and scams. The website provides daily updates on current fake news and offers tips on recognizing and avoiding them. Mimikama also has a Facebook page for regular updates and audience engagement.

**Fact Check Tools** - Google's Fact Check Explorer and Fact Check Markup Tool, designed to assist journalists and researchers in fact-checking.

**Jigsaw** - Google's educational and informational campaigns to raise public awareness about fake news and teach people how to identify them.

**Bellingcat** - An investigative journalism website using digital technologies to examine complex topics like war crimes and political events. Bellingcat collects and analyzes facts and information from public sources like social media to uncover significant stories. The



site is known for its investigations into the downing of Malaysia Airlines Flight 17 and the chemical attack in Syria.

## Deepfakes

Deepfake technology uses artificial intelligence and machine learning to create realistic-looking fakes of videos, images, and audio recordings. The technology behind deepfakes is called deep learning and is an exciting field that brings together diverse disciplines and industries. Deep learning employs artificial neural networks to create a model from existing material (e.g., video footage), which can then generate new material. Since the model is an abstract concept, it can also produce completely new material.

The risks and ethical challenges of deepfakes are significant. A frequent example of deepfake misuse is a video of U.S. President Barack Obama criticizing Donald Trump. It's easy to imagine how such a video could have devastating political consequences.

Deepfakes can be created relatively easily, allowing even someone without any technical know-how to publish fake videos. The use of this technology is increasing in the entertainment and pornography industries.

### Potential Advantages of Deepfake Technology

There are indeed positive applications and possibilities for the technologies behind deepfakes that can significantly benefit education, art, and science.

**The JFK Unsilenced project** has restored the speech of John F. Kennedy that he was supposed to deliver shortly before his assassination in 1963. Existing audio recordings of Kennedy's speech were analyzed and improved using these technologies. The result is a new version of the speech where Kennedy's words can be heard in higher quality and clarity. [Click here for more details.](#)



**Interactive Holograms: Survivor Stories Experience** is an innovative educational project by the Illinois Holocaust Museum and Education Center, creating holographic representations of Holocaust survivors. The project uses cutting-edge technologies to preserve the stories of survivors and provide visitors with an immersive experience. [Click here to read interviews about the project.](#)





## Conclusion

To protect ourselves from misinformation and fake news, we must take proactive measures, educating ourselves and others on the importance of verifying sources and critically analyzing information before passing it along. Additionally, we must ensure that our news sources are reliable and trustworthy.

So, the next time you come across a piece of news that seems too good (or bad) to be true, take a few minutes to question the information and check the facts. By doing so, you can not only ensure that you don't fall victim to fake news, but also make informed decisions based on accurate information.

This learning unit is based on "ComDigi S\*" and has been adapted and translated for use as OER.

ComDigi S\* was created as part of the DigiTaKS project. DigiTaKS was developed by the dtec.bw - Center for

Digitalization and Technology of the German Armed Forces and with funding from the EU Next Generation

## Sources

Images and translation with the help of AI / ChatGPT 4

- [Bellingcat Homepage](#)
- [Bröker, A., Kampf, L. Meinungsmache gegen Geld. WDR 2017](#)
- [Cambridge Social Decision-Making Lab. Bad News Game](#)
- [Cereproc. JFK Unsilenced](#)
- [Dizikes, P. Study: On Twitter, false news travels faster than true stories. MIT News 2018](#)
- [dpa-Faktencheck. Kuchen-Zitat wird Marie Antoinette in den Mund gelegt. dpa 2022](#)
- [Fichtner, U. SPIEGEL legt Betrugsfall im eigenen Haus offen. Spiegel 2018](#)
- [Kobold.Ai Was sind Deep Fakes und wie funktionieren sie?](#)
- [Konpka, N., Laube, K., Schneider, J. Schokoroboter und Deepfakes. Tübingen AI Center 2022](#)
- [Mimikama Homepage](#)



- [Pawlik. Meistgenutzte Informationsquellen der Bevölkerung in Deutschland im Jahr 2022. Statista GmbH 2020](#)
- [Spiegel Wissenschaft. Zehn Heilmittel gegen das Coronavirus, die garantiert nicht helfen. Spiegel 2020.](#)
- [Stahl, L. Artificial intelligence is preserving our ability to converse with Holocaust survivors even after they die. CBSNews 2020](#)
- [Statista Research Department. Meistgenutzte Informationsquellen der Bevölkerung in Deutschland im Jahr 2023. Statista 2024](#)
- [Terra X History. 3 erfolgreiche Fake-News der Geschichte. Youtube 2020](#)
- [Turcilo, L., Obrenovic, M., Fehlinformationen, Desinformationen, Malinformationen: Ursachen, Entwicklungen und ihr Einfluss auf die Demokratie. Heinrich Böll Stiftung 2020](#)
- [University of California \(UC\) Berkeley Library. Evaluating Resources. The Regents of the University of California 2022](#)

## Review questions on the topic:

A news website reports that a famous international footballer has been suspended for doping. Later, however, it turns out that the website misinterpreted the team's translation and the athlete was actually not involved in a doping scandal.

~~Fake News~~

Disinformation

~~Misinformation~~

A political party circulates a video in which an opposition leader seemingly makes controversial statements, but the video was clearly edited and manipulated.

~~Fake News~~

Disinformation

~~Misinformation~~



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On Facebook, a user posts that a certain toothpaste contains harmful chemicals, but the post is based on rumors and has no scientific evidence to support it.

Fake News

Disinformation

Misinformation





## 2. Digital identity and appearance

### Learning content

- Digital identity - what is it?
- Phenomena of digital identity
- Consequences of digital identity for non-virtual life

### Introduction

Have you ever searched for your own name on the Internet, for example on Google? Have you perhaps discovered something that you didn't actually put on the Internet yourself? Have you ever posted something and then looked at it again? Have you been waiting for someone to “like” it?

Many of us can answer these questions in the affirmative. Even if we don't want it, we can't avoid the fact that information about us appears on the Internet. At the same time, we have the opportunity to shape our image on the Internet ourselves, to maintain our profiles on social media or to conceal them through privacy settings. However, these aspects are not limited to the internet; they also influence our real lives. Information that is available about us on the Internet has an impact on our lives outside the Internet - and vice versa. The term “identity” in itself is a very complex topic. In the following pages, we will link the terms “identity” and “digitality”.

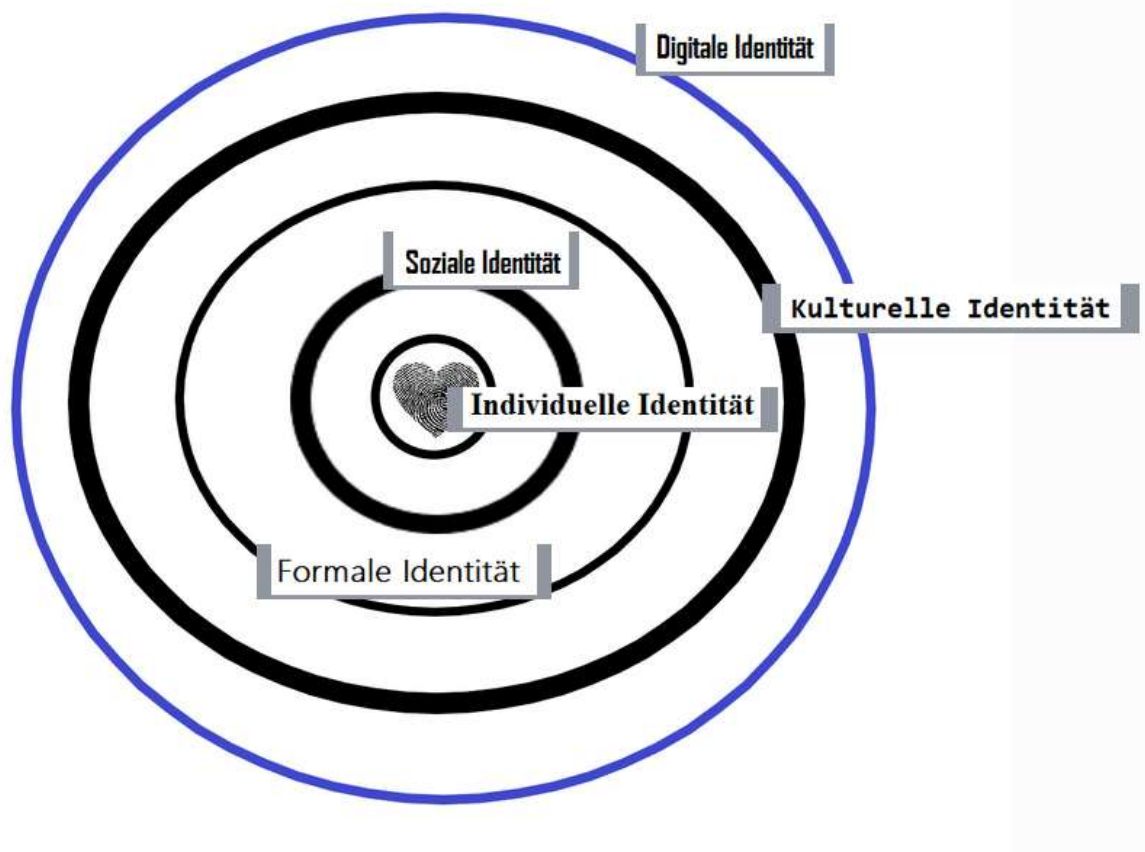
### Identity

Identity is generally a very complex topic that is discussed differently in different disciplines. We often refer to personal identity as it is discussed in psychology. Developmental psychology with Piaget's theory of cognitive development and Erikson's theory of psychosocial development are particularly insightful in this regard. Both see the development of a person in steps that begin in very early childhood and are always a result of the interaction between the individual (heredity) and the environment. The educational sciences are therefore concerned with the acquisition and change of identity through learning in the various phases of life (and into old age). A person always needs a reference/reference system in which an identity is created, for example a family, a society, a religion or a country can be very identity-forming. Especially when you leave or have to leave a country, you realize how crucial an “identity” is for our lives. In a bureaucratic sense alone, it is decisive for my life: my nationality, my identity card, my social security number. Without these identity-forming documents, our life in society and the system would not be possible at all, or in any case would be much more difficult. We can understand identity



as a very complex construct of different layers that interact with each other. Below is an overview of a possible classification of identities that influence us as human beings.

### Identity – five dimensions



Source: own presentation

**Individual identity:** On a personal level, identity refers to who a person is as a unique individual. This includes personality traits, characteristics, beliefs, interests and experiences that define a person.



**Social identity:** Social identity refers to a person's group affiliations and how these influence their perception of themselves and others. This can include aspects such as gender, ethnicity, religion, nationality, profession and other social categories.

**Formal bureaucratic identity:** This form of identity refers to the official and documented characteristics of a person that are recognised by institutions and authorities. These include factors such as nationality, birth certificates, ID and passport details, religious denomination, credit entries and school and professional certificates. Bureaucratic identity characteristics are often necessary for legal recognition and social participation.

**Cultural identity:** Cultural identity refers to belonging to a particular culture or group of people with shared values, traditions, language and behaviours. Cultural identity often shapes a person's thinking, behaviour and way of life.

**Digital identity:** In today's digital world, the term identity also has an online component. Digital identity refers to the information that is available about a person online, including usernames, profiles, social media activity and other digital traces. In other words, how I want to present myself digitally.

## Digital identity

As we have seen, **digital identity** can be seen as a single form of identity, but one that is decisively characterised by our other identity/identities. Without the latter, there would be no virtual personality. Nevertheless, it is a complex concept that encompasses many aspects of a person's online behaviour and presence. It is important to consciously deal with these aspects in order to protect and shape one's own online presence. The following three facets attempt to describe the scope of our digital representation:

## My own digital presentation

The way I present myself online has a significant influence on my digital identity. Social media such as Facebook, Instagram and LinkedIn allow me to share my personality, professional qualifications and interests. Through blogs and posts, I actively shape my digital presence and influence how others perceive me online.



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Source: Pixabay

## Internet and public representations

The internet reflects not only the content I have created myself, but also information that has been shared about me by others. For example, pictures or mentions on my old school's website or in public forums may be part of my digital identity. Although I can't necessarily control this information, it still shapes how I am perceived by the online community.



Source: google.com / br24.de / wikipedia.org



## Invisible digital identity

Behind the scenes, various platforms and technologies inconspicuously collect data about me. This invisible digital identity includes information such as search queries, online purchasing behaviour and usage patterns. Algorithms and artificial intelligence analyse this data to make predictions and offer personalised content. These aspects of my digital identity are often less obvious and can raise privacy and security issues.



Source: Pixabay

## How our digital identity influences us

As all dimensions of our identities are interconnected and influence each other, we need to realise how our digital identity can influence us. Digitality significantly shapes our real existence. Online, people specifically shape their image, influence social interactions and form their professional identity. Virtual presence not only influences self-perception, but can also lead to new interests and activities in real life. This complex interaction between virtual identity and the world outside the screen illustrates the profound impact of the digital sphere on our everyday lives. Here are three examples of how much the individual levels of digital identity (can) influence us.

### **Self-presentation = more dissatisfaction**

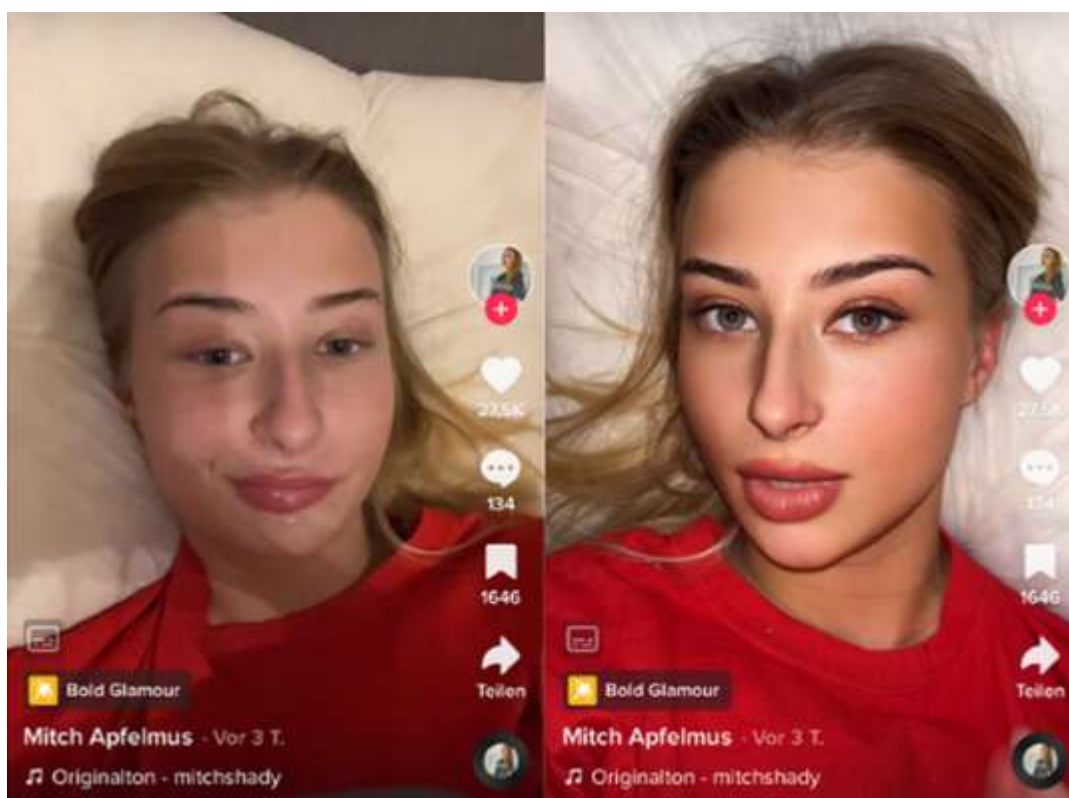
A new development has emerged with the increase in online video conferences: a rise in cosmetic surgery triggered by the “zoom effect”. The permanent presence in front of





webcams leads to increased self-reflection and a heightened awareness of supposed flaws. As a result, people are increasingly looking for aesthetic solutions such as Botox injections and facelifts in order to look better in virtual meetings. This digital hunt for the perfect appearance is now also influencing decisions in real life.

This development raises questions about the impact of digital technology on the ideal of beauty and the psychological aspects of self-perception. In addition, the phenomenon of “beauty filters” in virtual spaces increases the pressure to conform to unrealistic beauty standards. While some see this as an expression of personal freedom, there are also increasing concerns about growing societal pressure.



**Attribution:** TikTok: Mitch Apfelmus

### Validation and devaluation

In the digital era, phenomena such as “shitstorms”, “cancels” and the “digital pillory” influence our identity in a significant way.

A shitstorm unfolds through an avalanche of negative online comments and criticism that blurs the boundaries between online and offline identity. 'Canceling' results in people being ostracized by the digital community for controversial comments or behavior, which has a significant impact on personal and professional identity. Digital pillorying involves the public exposure of individuals online, which has a major impact on the lives of those affected and shapes their identity in the eyes of the public.





These phenomena illustrate how the digital world has a strong influence on individual identity. Negative events or actions can quickly lead to public condemnation, which has long-term effects on self-esteem and social integration. Responsible online behavior and a reflective digital culture are therefore crucial to protect personal identities and promote a healthy digital environment.



**Attribution:** Pixabay

### **Filter bubbles and echo chambers**

Filter bubbles and echo chambers, created by the personalized presentation of content in the digital world, significantly influence how we perceive information. One example of this is personalized online shopping recommendations, which create a filter bubble by analysing our previous purchases and search queries. We predominantly receive recommendations for products that match our previous preferences, which can limit our perspective on new products. On social media, we might discuss our purchases with like-minded people and recommend similar products, creating an echo chamber in online shopping and limiting access to diverse product experiences.

Another example relates to news consumption on social media. Platforms that present news in a personalized way might tend to show us mainly news sources that match our political views based on our previous interactions and clicks, which can lead to a limited perspective on current events. In discussions about current events on social media, we might tend to interact with people who share similar views, creating an echo chamber in news formation and limiting exchanges with diverse perspectives.



These examples illustrate how filter bubbles and echo chambers can limit access to diverse information by promoting personalized presentations and limiting the exchange of diverse perspectives. It is critical to be aware of these dynamics and consciously consult diverse sources of information to maintain a balanced perspective and promote identity.



**Source:** Pixabay

## Conclusion

**Digital identity** is only one dimension of our identity as a human being, but it has become an extremely important one and is likely to become even more important for future generations. Of course, our identity outside of digitality and the internet is also crucial to digital identity. At the same time, digital identity can also have a significant impact on our lives, both professionally and personally. It can help us or severely damage our reputation. A person's online presence has become a kind of calling card and plays a crucial role in our status, while also influencing our inner selves (for example, through the desire for recognition on social media).

Now that we understand the basics of digital identity, we need to develop a responsible approach to it.



This learning unit is based on “ComDigi S\*” and has been adapted and translated for use as OER. ComDigi S\* was created as part of the DigiTaKS project. DigiTaks was developed by the dtec.bw - Center for Digitalization and Technology of the German Armed Forces and with funding from the EU Next Generation.

## Sources

Images and translation with the help of AI / ChatGPT 4

- [Abramson, A. From a pandemic to plastic surgery: how Covid changed the way we see our faces. The Guardian 2021](#)
- [Deutscher Bundestag. Ausarbeitung. "Echokammern" und „Filterblasen“ in digitalen Medien. Deutscher Bundestag 2022](#)
- Dripke, A.. Digitale Identität: Unser Zwilling im Datennetz. Diplomatic Council e.V. 2021
- [Murphy Kelly, S. Plastic surgery inspired by filters and photo editing apps isn't going away. CNN Business 2020](#)
- [Tappe, I. \(Zwischen „Hate Speech“ und „Cancel Culture“: eine medienethische Betrachtung aktueller Debatten um Meinungs- und Redefreiheit im Internetzeitalter. In: Medien – Demokratie – Bildung. Ethik in mediatisierten Welten, S. 273–293, Springer VS 2022](#)
- Siegler, R., Eisenberg, N., DeLoache, J., Saffran, J., Pauen, S. Entwicklungspsychologie im Kindes- und Jugendalter Springer Verlag 2016

## Additional questions

### Exercise: Different identities?

My \_\_\_\_\_ identity is shaped by my presence and interactions in social networks.

- **digital**
- —formal
- —individual
- —cultural
- —social



My \_\_\_\_\_ identity distinguishes me from other people.

- digital
- formal
- **individual**
- cultural
- social

My \_\_\_\_\_ identity is shaped by my membership of certain communities or organizations.

- digital
- formal
- individual
- cultural
- **social**

My \_\_\_\_\_ identity is expressed through official documents and ID cards.

- digital
- **formal**
- individual
- cultural
- social

My \_\_\_\_\_ identity is reflected in the traditions, preferences and values that we adopt from our origins.

- digital
- formal
- individual
- **cultural**
- social



How do I know what information about me is being 'secretly' collected on the Internet?

~~By regularly deleting my browser history and cookies.~~

~~By severely limiting my personal data on social networks and online platforms.~~

~~By using emojis and abbreviations in online communications to disguise my data.~~

**By checking the privacy settings in my online accounts, browsers and applications and regularly updating my security software.**

How do I find out what is (freely accessible) on the Internet about my person?

~~By deleting cookies from my computer to remove my online traces.~~

~~By changing my location frequently to disguise my digital identity.~~

~~By encrypting my social media posts to protect my information.~~

**By using specialised online tools that analyse my personal data and digital presence on the internet.**

Which statements about the topic of "identity" are correct based on the statements in the learning unit?

- Identity is innate and unchangeable
- Piaget and Erikson are important figures in digital identity research
- Digital identity is an important part of our identities today
- We have no influence on our identity, and certainly not on our digital identity
- Which facet significantly influences our digital identity by actively shaping our own online presence?
- Internet and public representation
- Invisible digital identity
- My own digital representation
- All facets mentioned

What information is part of the invisible digital identity that accumulates behind the scenes and is analyzed by algorithms?

- Personal interests and hobbies
- Date of birth and address
- Search queries, online purchasing behavior and usage patterns
- Professional background and qualifications
- All of the above information can be part of the invisible digital identity



To what extent do filter bubbles and echo chambers influence our identity outside the internet?

- By strengthening and expanding our reallife social interactions.
- ~~By strengthening and expanding our real-life social interactions~~
- ~~They have no influence on the way we express or present ourselves outside the internet.~~
- ~~Filter bubbles and echo chambers only affect digital communication and have no impact on our behaviour in reallife.~~
- **Filter bubbles and echo chambers can mean that we are only confronted with opinions that confirm our own views, which may narrow our identity.**





### 3. Digital society and its impact on (mental) health

#### Learning content

In this learning unit you will learn about:

- Digital society and its effects on society and people
- Time as a scarce commodity
- Development of agile methods, FOMO etc., mechanisms to bind people to applications (Doomscrolling...)

#### Introduction

Phantom vibration syndrome: Does your mobile phone really ring?

You are sitting in the underground, your mobile phone vibrates and when you look at it, no notification is displayed? Or you go for a walk and notice that someone is calling you, but when you take your mobile phone out of your pocket, no call is displayed?

Do you recognise yourself in these situations? Then you are probably like many others!

#### The phantom vibration syndrome

In a study of students in 2015, a group of researchers found that 90% of respondents suffer from what is known as 'phantom vibration syndrome'. The students surveyed have the feeling that their mobile phone is ringing or vibrating, even though it is not actually doing so. The ringing and vibrating is therefore a hallucination in which the user of the inactive mobile phone thinks they are receiving a notification on their mobile phone, even though it is not. The students surveyed find this hallucination 'very annoying'.

Phantom vibration syndrome can lead to increased stress levels and imply an expectation of constant availability. As a result, media use and interaction using digital media can have an impact on one's own health and well-being.

[Here](#) you can find an interesting article from the BBC on phantom vibration syndrome.

Reflection question

What kind of relationship do we have with digital media, such as our mobile phone, if we sometimes think that it is vibrating because of a message, even though it is not?





Source: Pixabay/LoboStudioHamburg

## Technostress: a modern disease?

Mobile phones with glancing push notifications from social media, with requests to like a post or messages from friends that need to be answered. The laptop with the email popping up at the side of a colleague's desk, asking them to send the information for the planned business trip as soon as possible. Huge digital adverts tempting us to buy advertised miracle cures, etc. All of these have become a natural part of our everyday lives and we encounter them in a wide variety of places with varying degrees of intensity. Sometimes loud, sometimes quiet or sometimes colourful and shrill, sometimes more discreet or one-off or in a recurring rhythm.

Being surrounded by digital media and technology, as well as the constant implicit demand to respond to the notifications displayed, can put a lot of pressure on us. This is scientifically discussed under the term technostress.

### **Generators of technostress in everyday life**

Dragano et al. (2021) have identified generators of technostress in everyday life in the context of work. The model was adapted according to individual everyday life and in relation to society.



## Overload due to technology

Working with digital technologies can lead to overload due to a fast pace, multitasking, more frequent interruptions, higher expectations of rapid response in digital communication and extended working hours.

### **Technical complexity**

Due to the complexity of digital technologies, they can lead to a high level of concentration, (technical) handling knowledge and a feeling of control; at the same time, more time is needed in everyday life to be able to react competently to this complexity and deal with it.

### **Uncertainty through technology**

Concern that competent use of digital technologies could lead to a decline in one's own (status) position now or in the future, e.g. in relation to the workplace, as the necessary qualifications are not available; concern that one's own job could be replaced by digital technologies; feeling of a permanent need to continue training or learning in order to keep up.

### **Insecurity due to technology**

Digital technologies can constantly change in their functionality and content, which can lead to a constant feeling of uncertainty; constant updates; uncertainty as to whether you can face up to the digital transformation.

### **technical invasion**

The blurring of boundaries between work and leisure on the one hand and the blurring of individual areas of life on the other, leading to a reduction in relaxation time as a result of the flexibility associated with digital technologies; independence of time and place.

### **Unreliability due to technology**

Perceived stress due to technical failures and errors or low usability of digital technologies; black box of (deeper) functionalities.

### **Stress: human-machine-interaction**

Irritation and fear due to the unpredictability of robot or machine behaviour and of robots in general and their future use in work, society and private life.

### **Technical workplace monitoring**

Digital technologies can precisely control and monitor work performance, location and time, which can lead to a feeling of loss of control and mistrust.



# Under the spell of the digital? Dark Pattern, Doom Scrolling & FOMO

## Dark patterns

Dark patterns are designs that present **information in a distorted or hard-to-find way**. They use findings from **behavioural psychology** to trigger our instinctive reactions. For example, we recognise text with a coloured background as a button for an action. Dark patterns exploit these learned behavioural patterns to provoke **unwanted actions**. This is particularly noticeable with **cookie banners** when they try to persuade us to accept all cookies.

Dark patterns also mean skilfully hiding **desired information** to make it **difficult to find**. This often occurs with cancellation options that are deliberately named unclearly or not offered at all to make cancellation more difficult. In addition, dark patterns use targeted techniques **to influence our perceptions and reactions**. When we are confronted with information overload, we tend not to make a decision. Therefore, it is predictable that with extensive cookie settings, we often stick to the default options and do not make an **individual decision**.



Source: unsplash.com/Dan Asaki



**Test your knowledge in the game: “Dark Patterns game: Whoever agrees, loses!” from the consumer advice center [here](#).**

## Doom Scrolling

Doomscrolling refers to the **excessive reading of negative news** about wars, environmental disasters, accidents and waves of infection, etc., especially via **digital media and social networks**. The term combines “doom” (doom, doom, doom) with “scrolling” (scrolling, swiping down). During the coronavirus pandemic, many people have become increasingly addicted to doomscrolling by searching several times a day for the latest infection figures, symptoms, ways of spreading the virus and protective measures. This behavior is an example of the **negative impact of constant engagement** with bad news on smartphones or computers. People try to understand **uncontrollable situations**, such as a pandemic, and overcome negative feelings. In doing so, they often scroll and surf through news feeds to fill in information gaps. However, this can lead to a **vicious cycle** as they come across pessimistic and negative headlines, which reinforces their **negative feelings**.

People are prone to doomscrolling as they believe **inaccurate or incomplete information** in the hope of **security and control**. Factors such as cognitive distortions and seeking reassurance can contribute to this. People with negative emotions or mental illness are particularly susceptible to this behavior.



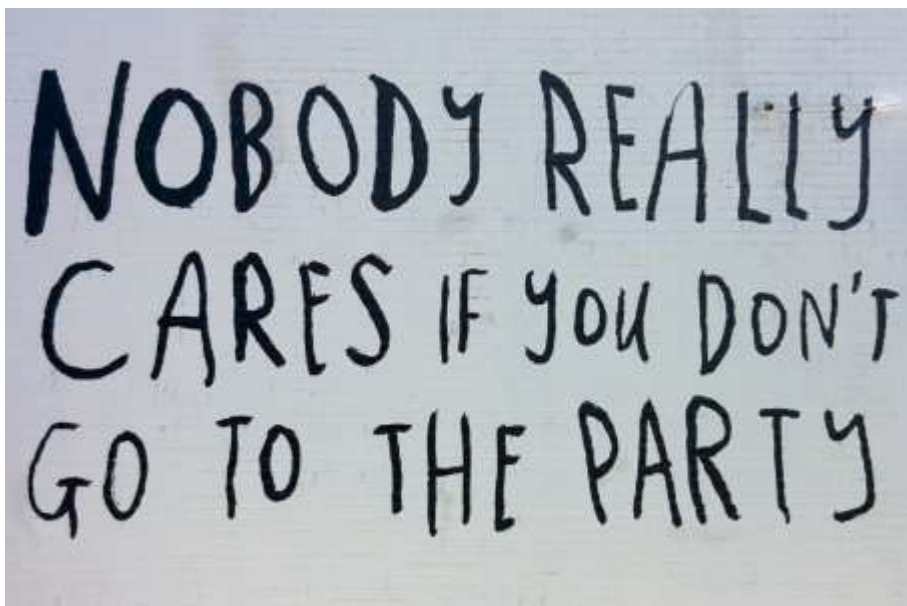
Source: [unsplash.com/Callum Skelton](https://unsplash.com/photos/Callum-Skelton)



## FOMO

The Fear Of Missing Out (FOMO) refers to the **fear of missing out on important information, events or experiences** that could improve one's life. This is accompanied by the fear of **later regretting decisions** regarding possible participation. Technological advances have increased the importance of FOMO as social networks increase **social participation** but also provide insight into activities that the user **does not participate in**. This can lead to a **pathological addiction** to social media.

Side effects include **concentration and productivity problems** due to constant interruptions from popping up messages and difficulty returning to previous activity. Sleep disturbances and fatigue can also occur, as well as self-doubt, anxiety, stress and depression. This results from the difficulty of **choosing the supposedly best social activity** and living with the fear of possibly having made the **wrong decision**.



Source: unsplash/Simund

### How can I deal with dark patterns, doom scrounging and FOMO?

**1. be aware of the moments when you have a bad feeling when you are active on social media:** Reflect on your own digital activity and how it makes you feel.

**2. minimise message consumption:** for example, deactivate push messages on your mobile phone or set your own time limits for message consumption.





**3. conscious message consumption:** be aware of your feelings while reading messages or read the messages slowly instead of scrolling through them quickly in order to jump less from information to information.

**4. regain control:** Although it is not up to you to control the future, you can control the present. Realise this and look at what you need to feel good in the present.

**5. enjoy time offline more often:** Do activities more often that don't require you to be online, such as going to a café, going for a walk or trying out new hobbies.

## How do you deal with dark patterns, doom scrolling and FOMO in everyday life?

### Example: Instagram

**Digital detox** refers to the **temporary renunciation of the use of digital media** such as mobile phones or televisions and associated applications such as Instagram, Discord or Netflix. The term was first introduced in 2012 and describes the **conscious attempt to improve** one's own well-being and raise awareness of one's own media **consumption by doing without**.

This is what a student says about his assessment of **Instagram**

*'So mainly Instagram. Since then, I've been on a bit of an **Instagram detox**. I still use it, but not like I used to, not like I used to. I don't follow any mega-beautiful travel sites or any, well, lots of friends follow supermodels where you, you know what I mean? Because, well, (...) I'm sure it's proven, I don't know, but at least I think it's just, um, bad. I take Australia, well, I lived in Australia for almost a year. And I was there on beautiful beaches. You go there and you're on the beach and you think to yourself: **'This should be a mega wow moment because it's so beautiful, but I've already seen this beach a thousand times on Instagram.'** And, um, there were other beaches that were even more beautiful than that one. And you kind of lose that special something, I think. And even if you have a partner now, for example, you subconsciously compare them, even if you don't want to, with the people you see on Instagram or you compare your relationship or your own life. I've learnt that a bit, so to speak. That social media doesn't actually go in the right direction. **You definitely have to be careful.** And, um, (...) also that at some point, when the time comes, I will definitely try to teach my children how to deal with social media or smartphones in general. In other words, to point out the dangers, which our parents or my parents were unable to do. Because I think it's important to know how it works. And I say they had no idea. But just to show them, 'don't do that now'. **Just regulate it a bit.** Just be a bit careful, what is my child doing on the internet? Giving them what you collect yourself. So that they don't make the same mistakes and spend all day on YouTube and, you know what I mean? Something like that. Maybe that. That was very verbose.'*



In a world characterised by digital media and technology, various (psychological) phenomena can have a challenging effect on our own health. Such phenomena include information overload, comparisons on social media, fear of missing out on news and the feeling of constant accessibility. As a result, it is all the more important to become aware of these phenomena and to reflect on them in relation to oneself.

## Ambivalences in modern society



Source: unsplash/DJ Johnson

In the contemporary world, there is a multitude of ambivalences that manifest themselves on different levels and in different contexts. Below you will find some typical ambivalences that exist in today's society and world. These ambivalences show that today's world is often characterised by complex and contradictory challenges that require careful consideration and a balanced approach. It is important to recognise these ambivalences and make responsible decisions in order to find a sustainable and balanced equilibrium.

### **Technology and privacy**

The collection of data through social media harbours the risk of misuse by third-party providers or cyber criminals, which can lead to security risks such as identity theft and fraud. Users must therefore carefully consider how much personal information they share and which platforms they trust.

### **Economic growth and environmental protection**

The pursuit of economic growth can conflict with environmental protection, climate protection and sustainability because, for example, natural resources are consumed more or natural habitats are destroyed to build infrastructure.





### **Technological progress and work safety**

On the one hand, the automation and digitalisation of workplaces can increase efficiency because robotics, artificial intelligence and automation can optimise processes. On the other hand, however, it can also mean job losses and insecurity for employees if workers are replaced by automated systems.

### **Social media and mental health**

The use of social media enables better networking, but it can also lead to problems such as online bullying, anxiety and depression (Dark Pattern, Doom Scrolling and FOMO).

### **Social media and data protection**

Social media offer convenient ways to communicate, share content and network, but these benefits are ambivalent to many users' concerns about privacy and the collection of personal information by platforms and third-party providers.

### **Education and social inequality**

Access to quality education can play a crucial role in reducing social inequality, but educational disparities can also exacerbate existing social differences if, for example, digital infrastructure is not made easily accessible or digital devices are too expensive.

### **Progress in medicine and ethical issues**

Medical advances open up new possibilities for treatment and healing, but also raise complex ethical questions, for example in the area of genetic engineering, the use of AI for diagnoses or organs from 3D printing. Health apps also enable self-determination and monitoring of personal health data, but can also be misused in terms of data security, data accuracy and the commercialisation of health data.

### **Technology and privacy**

While advancing technology brings many benefits and opportunities, it also raises concerns about privacy and the misuse of personal data. While advancing technology brings many benefits and opportunities, it also raises concerns about privacy and the misuse of personal data. For example, the Internet of Things (IoT), which enables a smart home. The networking of household appliances and sensors can lead to increased living comfort, but at the same time a lot of personal lifestyle data is collected, which can compromise privacy.

## **VUCA: Volatility - Uncertainty - Complexity – Ambivalence**

Due to the uncertainty, complexity and digital nature of the world of work and life, **resilience** is often declared to be a **future competence**. Skills are needed to be able to deal



**flexibly with uncertain situations**, to recognise **challenges or even failure as an opportunity** for rethinking and new thinking or to make **decisions** in ambivalent contexts.

These statements are based on the **VUCA world** as a diagnosis of the **present and the future**.

### **V - Volatility**

Volatility and fluctuations that can lead to uncertainty about expectations.

### **U - Uncertainty**

Volatility can go hand in hand with uncertainty. Uncertainty and risks are characteristic of the present.

### **K - Complexity**

Globalization and digitalization are leading to an increasingly interconnected society and economy. The underlying processes are often not transparent.

### **A - Ambivalence**

Decisions are made more difficult by the ambiguity of information and the frequency of contradictions and paradoxes, making clear solutions almost impossible.

## **Origin**

"Military is never reactive. It's always responsive!"

(Mike Schindler, US Navy Veteran)

In the 1990s, VUCA was developed by the US military to describe the challenges faced by military strategists in a rapidly changing and unpredictable environment. Later, the concept of VUCA was expanded and transferred to both the social and economic spheres.

## **Conclusion**

In a digitalised world and a digital society, there are numerous challenges for our (mental) health. Phantom vibration syndrome, for example, in which we believe that our mobile phone is vibrating or ringing when it is not, is often common and can lead to increased stress levels in a person. Technostress, triggered by the constant presence of digital media and the expectation of constant accessibility, can also put a strain on our psyche. Dark patterns, doom scrolling and FOMO often intensify this effect.

To counteract this, it is important to consume digital content consciously and reflectively and to integrate digital media into our everyday lives. Such self-regulation can be achieved,



for example, by deactivating push notifications on your mobile phone and setting time limits. A digital detox, i.e. temporarily giving up digital media, can also be beneficial.

In an increasingly uncertain and complex (surrounding) world, the reflective and conscious use of digital media and content is seen as an important skill for dealing flexibly with challenges and remaining capable of acting in uncertain situations.

This learning unit is based on “ComDigi S\*” and has been adapted and translated for use as OER. ComDigi S\* was created as part of the DigiTaKS project. Digitaks was developed by the dtec.bw - Center for Digitalization and Technology of the German Armed Forces and with funding from the EU Next Generation.

## Sources

Images and translation with the help of AI / ChatGPT 4

Dollinger, Bernd (2006): Salutogenese. In: Dollinger, Bernd und Raithel, Jürgen (Hrsg.): Aktivierende Sozialpädagogik. Ein kritischer Glossar. Wiesbaden: VS Verlag für Sozialwissenschaften. S. 173 – 190.

Dragano, N., Riedel-Heller, S. G. und Lunau, T. (2021): Haben digitale Technologien bei der Arbeit Einfluss auf die psychische Gesundheit? In: Der Nervenarzt 92: 1111–1120.

Fröhlich, Gildhoff, K. und Rönna-Böse, M. (2022): Resilienz. 6. Auflage. Paderborn: UTB.

Heller, J. (2019): Resilienz für die VUCA-Welt. Individuelle und organisationale Resilienz entwickeln. Wiesbaden: Springer Fachmedien.

Kaiser, S. Kozica, A., Böhringer, F. und Wissinger, J. (2021): Digitale Arbeitswelt. Wie Unternehmen erfolgreich die digitale Transformation gestalten können. Wiesbaden: Springer Gabler.

Komorowski, T. und Vieten, D. (2022): Technostress, Persönlichkeit und die Folgen von Technostress. Ein systematisches Literaturreview zur empirischen Forschungslage. Bonn: Bundesinstitut für Berufsbildung.

Mangot, A. G., Murthy, S. M., Kshirsagar, S. V., Deshmukh, A. H. und Tembe, D. V. (2018): Prevalence and Pattern of Phantom Ringing and Phantom Vibration among



Medical Interns and their Relationship with Smartphone Use and Perceived Stress. In: Indian Journal of Psychological Medicine: 440–445. DOI: 10.4103/IJPSYM.IJPSYM\_141\_18

Radtke, T., Apel, T., Schenkel, K., Keller, J. und von Lindern, E. (2022): Digital detox: An effective solution in the smartphone era? A systematic literature review. In: Mobil Media & Communication 10(2): 190-215. <https://doi.org/10.1177/20501579211028647>

Rosenberger, R. (2015): An experiential account of phantom vibration syndrome. In: Computers in Human Behavior 52: 124–131. <https://doi.org/10.1016/j.chb.2015.04.065>

Tarafdar M, Cooper CL, Stich J-F (2019) The technostress trifecta—techno eustress, techno distress and design: theoretical directions and an agenda for research. InfoSystems J29(1): 6–42.

## Questions

What does FOMO stand for?

- ~~Fear of missing out on something~~
- ~~Focus on meaningful goals~~
- ~~Seize opportunities, maximize results~~
- ~~Flexibility overcomes moments of uncertainty~~

Which of the following statements corresponds to the definition of technostress according to Tarafdar et al. (2019)?

- ~~• Technostress describes the general use of digital media and technologies in everyday life.~~
- ~~• Technostress refers to the positive effects of time pressure and stress on innovative technologies.~~
- **Technostress encompasses the stress caused by technological environmental conditions that can lead to psychological, mental and behavioral outcomes.**
- ~~• Technostress is exclusively negative and does not lead to any positive adaptive responses.~~

What is a generator of technostress in everyday life?

- ~~• Navigating a traffic route with a smartphone~~
- ~~• Lack of training or support in the use of new technologies~~
- ~~• More efficient communication thanks to technology~~
- **Complexity of technologies and associated feeling of loss of control**

Which statement best describes doomscrolling?



- ~~Doomscrolling refers to the skimming of positive news to lift the mood.~~
- ~~Doomscrolling refers to the targeted reading of neutral news in order to stay informed about current events.~~
- **Doomscrolling describes the excessive reading of negative news about wars, environmental disasters and waves of infection on digital media platforms.**
- ~~Doomscrolling involves deliberately ignoring news in order to reduce stress and anxiety.~~

Exercise: What is VUCA?

Volatility means...

- ~~... a measure of stability and predictability.~~
- **... unpredictable changes that can lead to having to adapt quickly as an individual.**
- ~~... exclusively technical progress in the economy, but has no influence on society.~~
- ~~... a sign that all future developments and trends are easily predictable.~~

Uncertainty means...

- ~~... short-term developments that have no long-term influence on political decisions.~~
- **... a current phenomenon that requires flexibility.**

Complexity means...

- **... that decisions are more complicated due to the multitude of interrelated factors**
- ~~... that social structures and cultural diversity are easily understandable and predictable.~~
- ~~... the restriction that relates exclusively to economic challenges and has no influence on social interaction or personal decision-making.~~

Ambiguity means...

- ~~... that information is always clear and unambiguous in a digital and global world.~~
- ~~... that individuals are always able to develop a clear and unambiguous view of complex problems in a world of ambiguity.~~
- **... that on an individual level, ambiguity can lead to different interpretations of information and make decision-making more difficult.**



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## Outlook

Cyberfairness is more than just digital competence – it is an attitude. It stands for the conscious, reflective, and responsible use of digital media – in the spirit of respect, justice, and protection for all involved. Empowering young people in their media use means encouraging them to trust themselves, respect others, and actively and fairly shape digital spaces.

We therefore see this guide as a contribution to an educational practice that not only makes digital spaces safer but also more socially just. We wish you great success in its implementation and sincerely thank all funding institutions and project partners for their support!

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