



# Guidelines for teachers and educators on tackling disinformation and promoting digital literacy through education and training

AN INITIATIVE OF THE

**Digital Education  
Action Plan**

2021-2027

#EUDIGITALEUCATION #DEAP

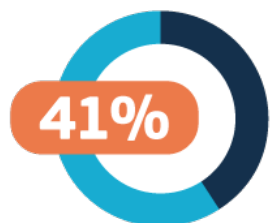
Education and  
Training

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Digital Education - European  
Commission

## THE NEED FOR ACTION: WHAT THE NUMBERS TELL US



**Eight in ten Europeans think that the existence of fake news is a problem in their country (78%) and for democracy in general (81%).**  
*(Source: Eurobarometer, Winter 2021-2022)*



**Of young people across Europe think that critical thinking, media literacy and democracy are not taught sufficiently at school;**  
*(Source: Eurobarometer, Autumn 2019)*



**Of 8th-graders lack basic digital skills, when directly tested**  
*(International Computer and Information Literacy Study -ICILS);*



**Of the 15-year-olds in the EU reported being taught** how to detect whether information is subjective or biased. *(PISA)*

**Identifying facts from fake information online, managing overload of information and navigating safely online are the top three digital skills for the 21st century**  
*(Open Public Consultation on Digital Education Action Plan, 2020).*

**Education and training has a key role to play to address these gaps**

## Not starting from scratch: **building on what works in education and training...**

- **Funding of grassroots projects through the Erasmus+ programme and the European Solidarity Corp**
- **2023 Erasmus+ Annual Work Programme:**  
Call for Forward looking projects on Teacher training and curriculum development in tackling disinformation and promoting digital literacy
- **Erasmus+ Teacher Academies**
- **eTwinning Community**
- **Erasmus+ Virtual Exchanges**
- **Updated Digital Competences Framework**  
(DigComp) 2.2

## **...and through other actions and initiatives, most recently as concerns...**

- **European Declaration of digital rights and principles**
- **New European strategy for a better internet for kids (BIK+)**
- **Revised Code of Practice on Disinformation**
- **Digital Services Act**
- **European Democracy Action Plan**

Introducing...

The Guidelines for teachers and educators on  
**tackling disinformation and promoting  
digital literacy** through education and training

The Guidelines for teachers and educators on **tackling disinformation and promoting digital literacy** through education and training

**The guidelines provide practical support and guidance for teachers/educators** and include definitions of technical concepts, class-exercises and tips on how to encourage healthy online habits;

Contribute to the following objectives in education and training:

- 1 **Providing insight and useful knowledge** about the dynamics and manifestations of disinformation, as well as the defining characteristics of credible information.
- 2 **Fostering an understanding of how digital literacy can be achieved.**
- 3 **Sharing information on how to use digital technologies** critically and responsibly.
- 4 **Providing insights into how students can be assessed** regarding their competences in the field of digital literacy.

Developed and endorsed by a dedicated **Commission Expert Group** on Tackling disinformation and promoting digital literacy through education and training

## Composition of the Expert Group



## Observers

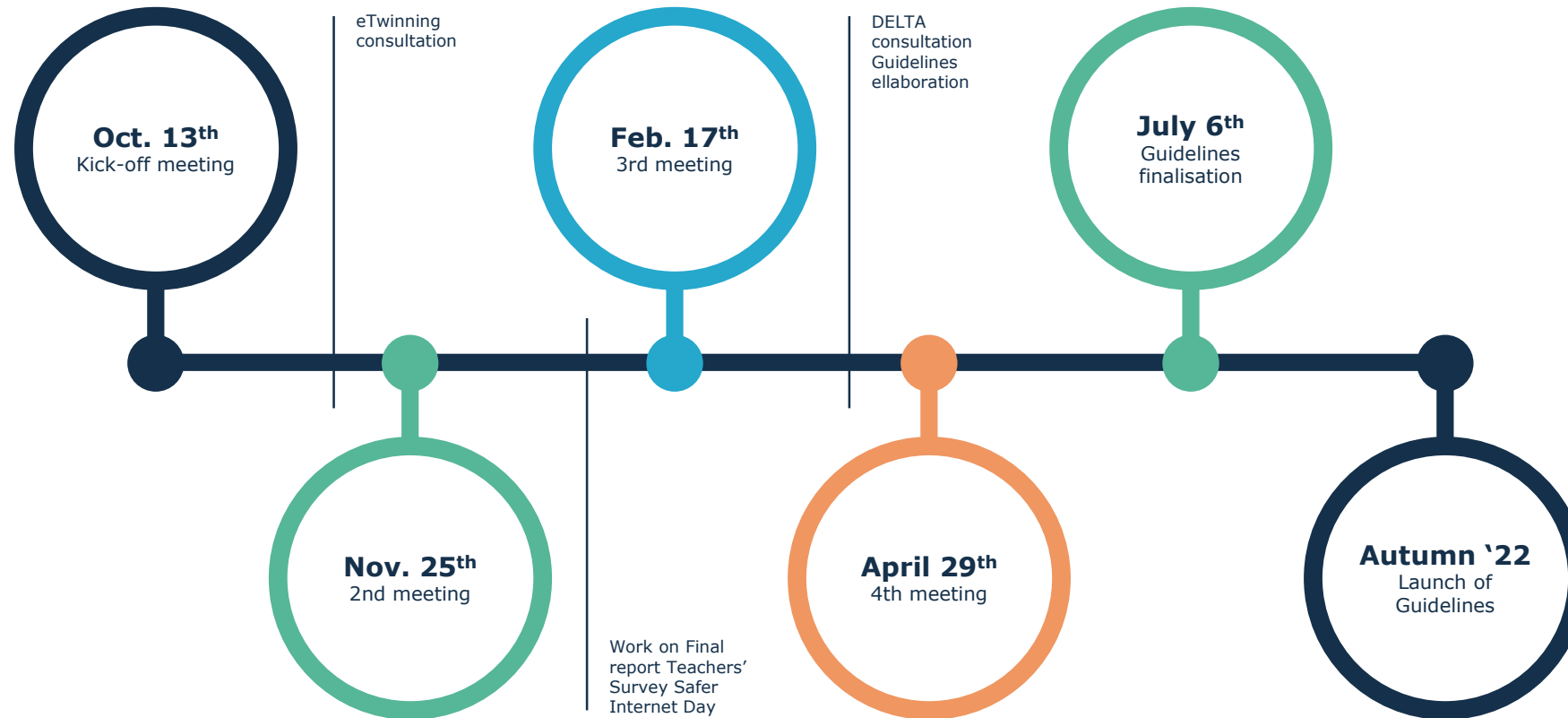
- ▶ UNESCO
- ▶ Commission Services:  
JRC, RTD, COMM, NEAR  
and INTPA

## Timeline and main milestones

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The Guidelines for teachers and educators on **tackling disinformation and promoting digital literacy** through education and training

## Who are the guidelines for?

- **Primary and secondary school teachers/educators** in different subjects and with different level of experience and knowledge in the field;
- Useful when working with **other school staff** such as school psychologists and social workers and librarians;
- Bringing in expertise and support of **parents, media professionals, civil society and the larger community.**

## How to get the best use of them

- **Divided into Five Key Chapters**
- Definitions of Key Terms
- Setting the Scene: Before, During and After Activities
- Building Digital Literacy Competences
- Addressing Disinformation
- Assessing and evaluating digital literacy



## GOING FORWARD, GOOD TO KNOW: DEFINITIONS OF KEY TERMS

Guidelines contain definitions and explanations of key terms and concepts\* to help teachers navigate in the field.

*\*As endorsed by the members of the Expert Group*

### Digital literacy

The ability to **access, manage, understand, integrate, communicate, evaluate, create, and disseminate information safely** and appropriately through digital technologies.

It includes competences that are variously referred to as **information literacy and media literacy, computer, and ICT literacy**. Digital Literacy involves a dimension of active and civic engagement with the digital world and **promotes active citizenship**.

### Disinformation

**Verifiably false or misleading information** that is created, presented, and disseminated for economic gain or to intentionally deceive the public.

**It can cause public harm.**



GOING FORWARD, GOOD TO KNOW:  
**DEFINITIONS OF KEY TERMS**

Other definitions include...

**Algorithms**

Media literacy

Digital Citizenship

**Artificial  
Intelligence  
(systems)**

Filter Bubble

**Deepfakes**

Verification

Meme

Bot

Prebunking

**Phishing**

Malinformation

**Fact Checking**

Debunking

**Misinformation**

Echo Chambers

Digital footprint

## SETTING THE SCENE: TEACHING AND LEARNING IN THE DIGITAL SCHOOL ENVIRONMENT

### 1 Before the Activities

- **Reach out to international organisations and networks** of teachers and educators for existing resources;
- Explore national and local initiatives and **connect school activities to key networks and events;**
- **Seek local, national and/or international funding;**
- **Build trust in the classroom** and have more sensitive discussions after developing a classroom community;
- **Consider starting with one-on-one interactions (teacher-student),** then move to interactions with smaller groups and then the whole class;

### 2 During the Activities

- **Strike a balance** between an open classroom climate and a safe space;
- When discussing controversial or sensitive issues, **monitor emotional reactions in the classroom;**
- Check in with individual students.

### 3 After the Activities

- **Debrief with** students about their thoughts, experiences and emotions.
- **Make presentations** (possibly virtual) to other classes or schools;
- **Design new activities** which build on the previous ones.

## Building digital literacy competences in the classroom and school

- **Focus on the importance of digital citizenship** and what it means to be a digital citizen and digitally literate;
- **Helps teachers to recognise low levels of digital literacy** and to distinguish this from low levels of technical competence;
- **Helpful ideas and tips on getting started with teaching digital literacy** and what types of specific learning goals teachers can introduce for different levels of students;
- **Identifying and overcoming barriers and challenges** and drawing inspiration for successful practices.

### A few ways forward

- Encourage students to share **how technology and social media can create positive change**;
- **Help students find accurate online information** and provide students with credible sources of information;
- **Pay attention to digital well-being** and how digital tools can benefit or negatively impact mental or physical health;
- Discuss online behaviour with students and **how to become a responsible citizen**;
- Be open that as a teacher or educator, **you do not and cannot know everything**.

### Examples of learning objectives for primary and secondary school

Is aware that online environments contain all types of information and content including **misinformation and disinformation**;

Can search for **media content** that can be used freely and with permission;

Knows **how to create and share media content**.

## Disinformation: what are we talking about?

**Outlines how disinformation is defined** and its different characteristics, such as:

- Attacking the opponent – ‘Us versus Them’ views of reality.
- Simplifying facts and excludes the context.
- Repeating an idea over and over again.

**Highlights why disinformation is created** and spread and what is the role and responsibility of media (traditional and social media) and governments;

**Helps learners understand the various dimensions of disinformation**, including technical, ethical and economic aspects of disinformation.

**Supports learners in assessing the credibility of information**, and how to identify and use legitimate sources

## A few ways forward

**Explore critical thinking and fact-checking** through introducing students to websites of trusted fact-checkers or inviting guest-speakers to the classroom; participating with your school in national or international events;

**Introduce students to debunking and pre-bunking** through discussing possible disinformation campaigns they anticipate will take place around key social issues;

**Encourage students to research and discuss** why disinformation is created (i.e. around climate change, COVID etc.).

## Assessing and evaluating digital literacy

Guidance on assessing digital literacy and critical thinking of young people across the following dimensions:

### The ability to:

- (1) separate facts from opinions
- (2) identify manipulative strategies
- (3) fact-check online information,
- (4) find, use and create information in critical, constructive, and creative ways;
- (5) use digital devices effectively.

### Identifying types of assessment practices:

tests of knowledge and skills; self-evaluations; reflection on the outcomes of tests or learning experiences or a mix of all;

### Tips on evaluating the effective

**educational approaches** relating to digital literacy in the school- e.g through the use of SELFIE self-reflection tool.

## A few ways forward

### Use more open questions and assignments,

prompting students to search online, before and after lessons.

**Have students develop counter-narratives** to disinformation campaigns that target certain vulnerable communities.

**Assess, together with the other students, the 'strength' (how persuasive are they and why) of the counternarratives.**

**Talk with the school director about collaborating with a local university or NGO** to conduct an evaluation of how digital literacy is taught in the school.

## GUIDELINES ALSO INCLUDE...

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**16** Practical  
tips



**12** Activity  
plans



**5** Cautionary  
notes



**9** Insights  
on topics

# SOME EXAMPLES OF TIPS, PLANS, INSIGHTS AND CAUTIONARY NOTES

## Tip 1 Engaging students

If there are some students that could be challenging to manage, consider involving them in the preparation of the activities and give them some tasks or responsibilities. They might surprise you in a positive way.

## Tip 2 Engaging Parents

Engagement among parents varies greatly. A good moment to communicate with them can be the first teacher/educator-parent meeting of the year where attendance is often high. If there is parental resistance it is important to have allies in the school, such as the school director.



## Activity Plan 5 - Deciding whether a fact or opinion?

Play the 'fact or opinion game' with your students. This is a very easy, gamified way to gain insight into facts versus opinions and is appropriate for students in both primary and secondary schools. Present students with 10 pre-selected statements that are either fact or opinion (for instance: 'it is zero degrees outside' versus 'it is too cold outside'). Such statements can easily be found online (handy for future reference). Students need to decide which statements are facts and which are opinions. Students should also provide arguments why they think this is the case. This activity can be expanded by asking how students determine what is a fact and what is an opinion?

A similar exercise can be done with science versus pseudo-science. This would be more appropriate for slightly older students.



## Cautionary Note: Controversial Issues

Controversial Issues are often very useful to discuss with students, especially when referring to disinformation, but might need extra time and caution. Some examples include:

- COVID-19 and vaccines
- The Russian invasion of Ukraine
- Past and present histories of injustice
- Crime and punishment
- Gender-related and sexual diversity issues
- Migration, minorities, racism, and religion
- Climate change and global warming
- Colonialism, slavery, antisemitism, Holocaust denial
- Sensitive national topics



## Box 6 An example of an assessment examining students' ability to identify manipulative headlines

1. True or fake? Underscore True or Fake after the headlines below.
  - a. The Government is Manipulating the Public's Perception of Genetic Engineering in Order to Make People More Accepting of Such Techniques (True or Fake)
  - b. Attitudes Toward EU Are Largely Positive, both Within Europe and Outside It (True or Fake)
  - c. Certain Vaccines are Loaded with Dangerous Chemicals and Toxins (True or Fake)
4. Please justify your responses in question 1 – why do you consider the headlines to be true or false? How can you find out if the headlines are correct or misleading?

Note: Headline 1a and 1c are fake headlines and 1b is a real news headline. Examples 1a and 1c are examples of conspiracy theories. 1c is emotionally manipulative. Asking an expert or fact-checking the information in other credible sources are good ways to find out what is correct.





# 1 Challenges

- The field of digital literacy and disinformation is dynamic and ever changing. Teachers and young people need both the **motivation and competences to actively engage** with these changes.
- Teachers often lack the time to **acquire the necessary level of knowledge and expertise** associated with teaching about the digital world.
- There is a **lack of guidance for teachers** regarding how to address the topics of digital literacy and disinformation, and also a lack of solid resources.
- The **design of effective programs is challenging** because the world of digital literacy is complex, and educational materials need to be presented in accessible ways for all users.

# 2 Proposed Ways Forward

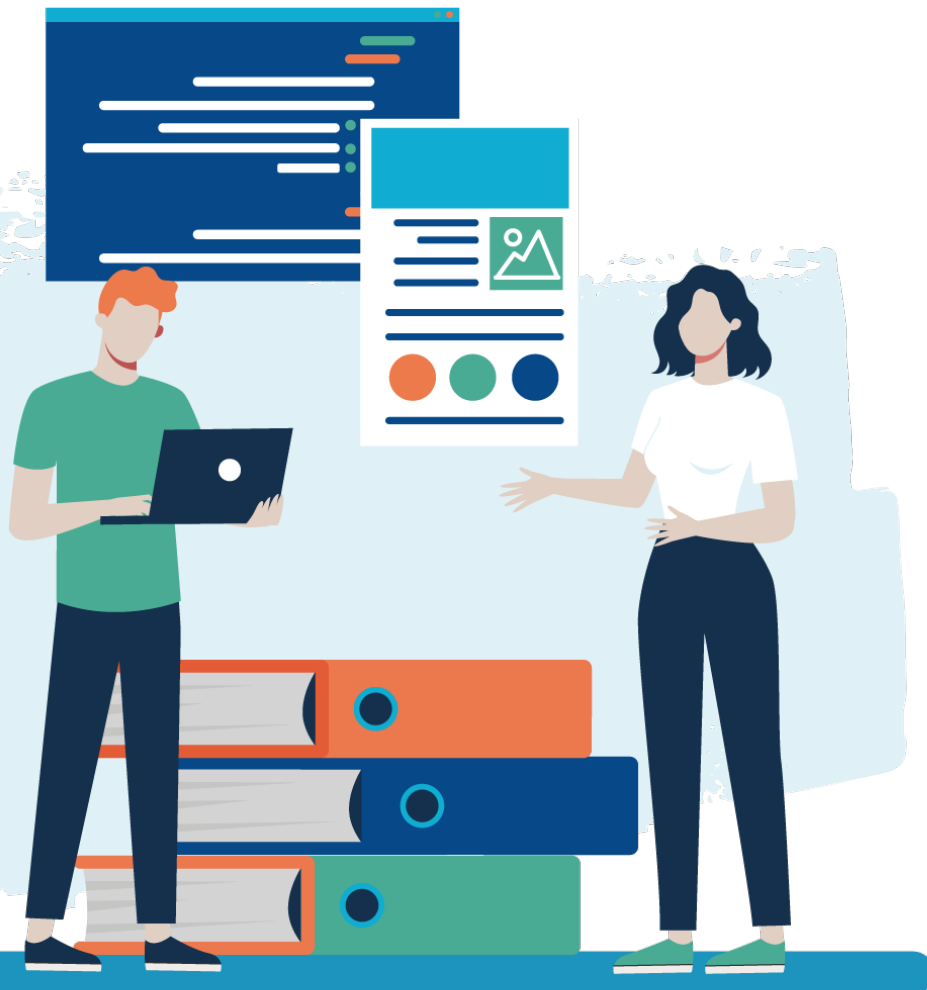
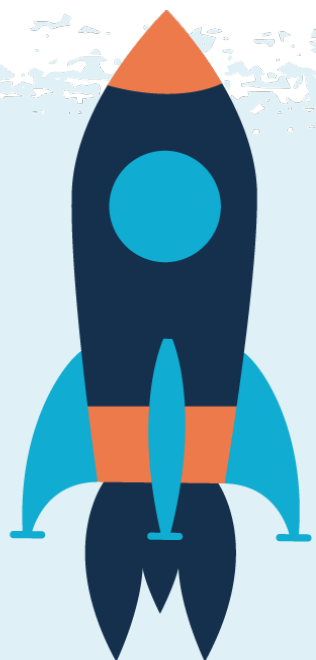
- **Feedback loops between teachers and the research community** promote reflection and learning. The development of digital literacy is best informed by the latest scientific knowledge.
- Teachers **need assistance in identifying and implementing effective resources** and strategies that engage students in critical analysis. They also need support in terms of **developing lesson plans** in an often-overcrowded schedule.
- The **DigCompEdu framework**, which describes what it means for educators to be digitally competent and identifies 22 key competences, **can serve as an excellent starting point for all ITE and continuous teacher professional education (CPD)**.
- Presently, ITE (initial teacher education) courses focusing on digital literacy are often optional. Given the critical role that digital literacy plays in contemporary learning, it is important that **digital literacy courses become more prominently integrated into ITE**.

## HOW TO GET INVOLVED?

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Check the guidelines and  
**use them in the classroom**



**Share with  
colleagues** and peers



**Spread** the word!

## Interested to know more?

Get in touch by email:  
EAC-DIGITALEDCATION@ec.europa.eu



### Find out more:

European Education Area ([education.ec.europa.eu](https://education.ec.europa.eu)) | Digital Education Action Plan (2021-2027)  
> [education.ec.europa.eu/focus-topics/digital-education/action-plan/action-7?](https://education.ec.europa.eu/focus-topics/digital-education/action-plan/action-7?)

### Stay tuned

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