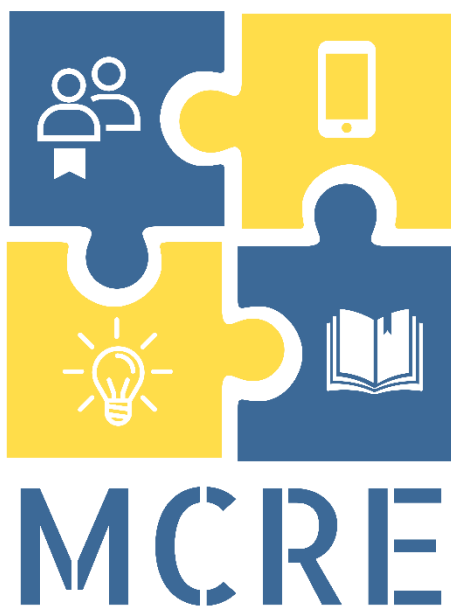




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# The MCRE E-Book

Developed by the MCRE Project Consortium

MCRE - Media literacy, critical viewing and CREative vision as effective learning approach for people with fewer opportunities

THE PARTNERSHIP:





## TABLE OF CONTENTS

<b>INTRODUCTION.....</b>	<b>7</b>
<b>1. CONTEXT AND AIM OF THE E-BOOK.....</b>	<b>8</b>
1.1. CONTEXT.....	8
1.2. AIM OF THE E-BOOK.....	9
<b>MODULE 1: What is disinformation and fake news?.....</b>	<b>10</b>
<b>1. AIM AND LEARNING OBJECTIVES .....</b>	<b>11</b>
1.1. AIM OF THE MODULE .....	11
1.2. LEARNING OBJECTIVES .....	11
<b>2. LEARNING CONTENT.....</b>	<b>11</b>
2.1. WHAT IS FAKE NEWS? .....	11
2.1.1. Concept and types of fake news.....	11
2.1.2. How it spreads.....	16
2.1.3. Why it is believed .....	18
2.2. CONCEPTS SURROUNDING FAKE NEWS.....	19
2.2.1. Disinformation .....	19
2.2.2. Postruth.....	20
2.2.3. Infodemics .....	20
2.2.4. Hoaxes .....	20
2.2.5. Deepfakes .....	20
2.2.6. Scams.....	20
2.2.7. Online challenges .....	21
2.3. HOW TO SPOT FAKE NEWS .....	21
2.3.1. The importance of truth .....	21
2.3.2. Learning to refute fake news.....	24
2.3.3. What is doing Europe regarding fake news? .....	24
<b>3. FURTHER READING.....</b>	<b>28</b>
<b>4. BIBLIOGRAPHY.....</b>	<b>28</b>
<b>MODULE 2: Why we need critical thinking and a critical view .....</b>	<b>29</b>
<b>1. AIM AND LEARNING OBJECTIVES .....</b>	<b>30</b>
1.1. AIM OF THE MODULE .....	30
1.2. LEARNING OBJECTIVES .....	30
<b>2. LEARNING CONTENT.....</b>	<b>30</b>
2.1. THE CONCEPT OF CRITICAL THINKING AND CRITICAL VIEW .....	30
2.1.1. Critical thinking skills .....	31
2.1.2. Critical thinking process.....	33
2.2. WHEN IS CRITICAL THINKING NECESSARY .....	34



2.2.1.	Critical thinking in everyday life .....	35
<b>2.3.</b>	<b>THE BENEFITS OF CRITICAL THINKING.....</b>	<b>37</b>
2.3.1.	Critical thinking promotes creativity .....	39
2.3.2.	Critical thinking improves relationships .....	40
2.3.3.	Critical thinking exercises your mind .....	42
2.3.4.	Critical thinking helps to make conscious choices and decisions .....	44
2.3.5.	Critical thinking helps to solve problems.....	45
2.3.6.	Critical thinking and teamwork .....	47
2.3.7.	Critical thinking helps with financial management .....	49
2.3.8.	Critical thinking helps to communicate more effectively .....	50
<b>2.4.</b>	<b>CHANGING ONE'S MIND AFTER RECEIVING NEW EVIDENCE USING A CRITICAL VIEW .....</b>	<b>51</b>
<b>3.</b>	<b>FURTHER READING .....</b>	<b>54</b>
<b>4.</b>	<b>BIBLIOGRAPHY .....</b>	<b>54</b>
	<b>MODULE 3: Critical thinking – how to improve your skills.....</b>	<b>56</b>
<b>1.</b>	<b>AIM AND LEARNING OBJECTIVES .....</b>	<b>57</b>
1.1.	AIM OF THE MODULE .....	57
1.2.	LEARNING OBJECTIVES .....	57
<b>2.</b>	<b>SELF-ASSESSMENT EXERCISE – ARE YOU A CRITICAL THINKER? .....</b>	<b>57</b>
<b>3.</b>	<b>LEARNING CONTENT.....</b>	<b>59</b>
3.1.	CHARACTERISTICS OF CRITICAL THINKING SKILLS DEVELOPMENT.....	60
3.2.	CRITICAL THINKING PRINCIPLES OF LEARNING.....	67
3.3.	METHODS AND PRACTICES .....	69
3.3.1.	Critical analysis .....	69
3.3.2.	Debate teams .....	70
3.3.3.	Dramatization .....	70
3.3.4.	Action Maze.....	71
3.3.5.	Critical Incident.....	71
3.3.6.	Socratic Questioning.....	71
3.3.7.	Creative Visualization .....	71
3.3.8.	Journal Writing .....	72
3.4.	KEY TAKEAWAYS - INCORPORATING EVERYDAY HABITS .....	72
<b>3.</b>	<b>FURTHER READING .....</b>	<b>74</b>
<b>4.</b>	<b>BIBLIOGRAPHY .....</b>	<b>74</b>
	<b>MODULE 4: How to analyse the information we receive.....</b>	<b>76</b>
<b>1.</b>	<b>AIM AND LEARNING OBJECTIVES .....</b>	<b>77</b>
1.1.	AIM OF THE MODULE .....	77
1.2.	LEARNING OBJECTIVES .....	77



<b>2. LEARNING CONTENT.....</b>	<b>77</b>
<b>2.1. INTERNET DOMAINS.....</b>	<b>77</b>
2.1.1. What is a Domain Name? .....	78
2.1.2. How to register your domain?.....	78
2.1.3. What types of domain name and endings are there? .....	78
<b>2.2. HOW TO IDENTIFY RELIABLE SOURCES .....</b>	<b>80</b>
2.2.1. The C.R.A.A.P. Method .....	84
2.2.2. The SIFT Method.....	85
2.2.3. The ACT UP Method .....	88
2.2.4. The Lateral Reading .....	91
<b>3. FURTHER READING .....</b>	<b>94</b>
<b>4. BIBLIOGRAPHY .....</b>	<b>94</b>
<b>MODULE 5: Using the media effectively.....</b>	<b>95</b>
<b>1. AIM AND LEARNING OBJECTIVES .....</b>	<b>96</b>
1.1. AIM OF THE MODULE .....	96
1.2. LEARNING OBJECTIVES .....	96
<b>2. LEARNING CONTENT.....</b>	<b>96</b>
<b>2.1. THE COMMUNICATION OUTLINE APPLIED TO DIGITAL COMMUNICATION .....</b>	<b>97</b>
2.1.1. Communication theory:.....	97
<b>2.2. SOCIAL MEDIA AND CONVERSATIONAL THEORY.....</b>	<b>99</b>
<b>2.3. HOW CAN WE USE THE FOUR MAXIMS OF CONVERSATION IN EDUCATION? .....</b>	<b>99</b>
<b>2.4. MEDIA EDUCATION AND SOCIAL COMMUNICATION EDUCATION .....</b>	<b>100</b>
<b>2.5. THE RULES OF COMMUNICATION: LASSWELL MODEL .....</b>	<b>100</b>
<b>2.6. REFLECTIONS ON HAROLD LASSWELL'S MODEL WITH REGARD TO SOCIAL COMMUNICATION</b>	<b>101</b>
<b>2.7. HOW CAN WE USE THE 5W THEORY IN TEACHING? .....</b>	<b>102</b>
<b>2.8. CRITICAL THINKING AND SOCIAL MEDIA.....</b>	<b>103</b>
<b>2.9. HOW CAN WE PROMOTE THE DEVELOPMENT OF CRITICAL THINKING? .....</b>	<b>105</b>
<b>2.10. SYNTAX AND RULES FOR EFFECTIVE SOCIAL COMMUNICATION - SOCIAL MEDIA ARE NOT ALL THE SAME .....</b>	<b>107</b>
2.10.1. Facebook .....	109
2.10.2. LinkedIn .....	111
2.10.3. Instagram.....	113
2.10.4. WhatsApp .....	115
2.10.5. E-mail.....	117
<b>3. FURTHER READING .....</b>	<b>119</b>
<b>4. BIBLIOGRAPHY .....</b>	<b>119</b>
<b>MODULE 6: Online tools to support your work .....</b>	<b>120</b>



<b>1. AIM AND LEARNING OBJECTIVES .....</b>	<b>121</b>
1.1. AIM OF THE MODULE .....	121
1.2. LEARNING OBJECTIVES .....	121
<b>2. LEARNING CONTENT.....</b>	<b>121</b>
2.1. ONLINE TOOLS AVAILABLE TO VERIFY INFORMATION.....	121
2.2. ONLINE PLATFORMS AND APPLICATIONS FOR FACT CHECKING .....	122
2.2.1. AdblockPlus .....	122
2.2.2. Factual .....	122
2.2.3. Website Whitelist .....	124
2.2.4. Domain whitelist.....	125
2.2.5. Logically .....	126
2.2.6. MediaBias Ratings .....	127
2.2.7. Snopes .....	128
2.2.8. FactCheck.org .....	129
2.3. ONLINE TOOLS FOR VIDEOS AND IMAGES VERIFICATION .....	130
2.3.1. Google Reverse Image Search .....	130
2.3.2. TinEye .....	131
2.3.3. Forensically .....	132
2.3.4. InVID .....	133
2.4. ONLINE TOOLS FOR SOCIAL MEDIA .....	134
2.4.1. Social Fixer for Facebook.....	134
2.4.2. Hoaxy.....	135
2.4.3. TwitterTrails.....	137
2.4.4. BobSentinel .....	138
2.5. ONLINE TRAINING TOOLS TO DEVELOP SKILLS IN RECOGNISING FAKE NEWS.....	139
2.5.1. Factitious .....	139
2.5.2. Bad News.....	140
<b>3. FURTHER READING .....</b>	<b>141</b>
<b>4. BIBLIOGRAPHY .....</b>	<b>141</b>
<b>MODULE 7: #fake news – analysing popular social media news .....</b>	<b>143</b>
<b>1. AIM AND LEARNING OBJECTIVES .....</b>	<b>144</b>
1.1. AIM OF THE MODULE .....	144
1.2. LEARNING OBJECTIVES .....	144
<b>2. LEARNING CONTENT.....</b>	<b>144</b>
2.1. SOCIAL MEDIA NEWS: IS IT TRUE OR FAKE? .....	145
2.1.1. Potential, opportunities and risks of social media use.....	145
2.1.2. What are the benefits from social media use?.....	152
2.1.3. ...and the risks? .....	154
2.1.4. Social media and news .....	156
2.1.5. How to identify a fake news circulating on the social media .....	157



<b>2.2.</b>	<b>POPULAR SOCIAL MEDIA FAKE NEWS.....</b>	<b>159</b>
2.2.1.	Most popular fields.....	159
2.2.2.	Some examples.....	159
<b>2.3.</b>	<b>THE CRITICAL USE OF SOCIAL MEDIA TO AVOID SPREADING FAKE NEWS.....</b>	<b>162</b>
<b>3.</b>	<b>FURTHER READING.....</b>	<b>165</b>
<b>4.</b>	<b>BIBLIOGRAPHY.....</b>	<b>165</b>



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# INTRODUCTION



## 1. CONTEXT AND AIM OF THE E-BOOK

### 1.1. CONTEXT

This E-book is developed in the framework of the project MCRE (Media literacy, critical viewing and CREative vision as effective learning approach for people with fewer opportunities), No.: 2021-1-RO01-KA220-ADU-000033435, financed by the EU through the Erasmus+ Programme, Key action 2 (Cooperation Partnerships in Adult Education), and implemented by a consortium of 7 organisations in 6 partner countries – ADES (Romania), CWEP (Poland), LOVILA (Cyprus), MEUS (Spain), TUCEP (Italy), LABC (Italy) and E&D (Portugal).

The aim of the project is to increase the media literacy and critical viewing among the people with fewer opportunities and adult education from Romania, Poland, Italy, Cyprus, Spain and Portugal. The goal of the project is to support adults in analysing information, so that they can be more resilient to fake news and disinformation and to equip them with tools such as a mobile app to analyse fake news.

This goal will be achieved through the development of the:

1. MCRE E-book, which provides information and techniques to enhance the ability to analyse received content;
2. MCRE mobile app, which will be a free mobile application for iOS and Android, consisting of several elements to support the target group in checking information acquired in the media and training them in critical thinking.

The target groups of MCRE Project and beneficiaries of its results are people with fewer opportunities (low qualified persons, unemployed youth, adults at poverty risk, etc.) and adult educators.

The MCRE e-book is a collection of content aimed at helping people in Europe, especially the target group, to improve their critical thinking skills. It teaches them how to better understand and analyze information from various sources.

The Covid-19 outbreak showed that European communities have trouble understanding and studying the information they receive. This manual gives you information and techniques to help you analyze the things you receive and understand them better. This will help make society better educated and more resilient, especially for those who are disadvantaged.

The MCRE handbook will help fight false information and myths that European communities are exposed to.

MCRE e-book includes content on the following topics:

1. What is disinformation and fake news
2. Why we need critical thinking and a critical view



3. Critical thinking - how to improve your skills
4. How to analyse the information we receive
5. Using the media effectively
6. Online tools to support your work
7. #fake news - analysing popular social media news

## 1.2. AIM OF THE E-BOOK

This e-book aims to:

- To present the phenomenon of disinformation based on real examples and to show the scale of the phenomenon in Europe
- Demonstrate critical thinking skills and critical vision as key skills for effective and informed media use
- To provide the target group with skills and techniques to enable them to more effectively assess the veracity of the information they receive
- To provide the target group with information on how to use different media (both traditional and new) effectively.
- Provide information on available online tools, applications and platforms that will support both critical thinking skills and support the target group in analysing the information received

The adult educators will be able to use the MCRE e-book in more ways, together or apart from MCRE mobile app:

- To expand their own knowledge regarding the topics presented in the e-book.
- As a base for their educational activities.
- As additional material for their trainees/ students.

They can use the text as it is or adapt it according to the needs of their classes.

The people with fewer opportunities (low qualified persons, unemployed youth, adults at poverty risk, etc.) can also use this e-book to expand their knowledge, after using the MCRE mobile app.



# MODULE 1: What is disinformation and fake news?



## 1. AIM AND LEARNING OBJECTIVES

### 1.1. AIM OF THE MODULE

The objective of this Module is to introduce the learner to the basic concepts of disinformation and fake news in such a way that, by understanding them and after training with the following modules of the MCRE e-book, he/she will be able to increase their media literacy and critical viewing.

### 1.2. LEARNING OBJECTIVES

By the end of this Module the learner will know:

- Key concepts of disinformation and fake news.
- How important is it to live in the truth and to say the truth.
- How to detect fake news

## 2. LEARNING CONTENT

### 2.1. WHAT IS FAKE NEWS?

Misleading news has always existed, but since the emergence of the Internet and new communication and information technologies, Fake News has proliferated across the globe. In this section, you will discover some basic concepts that will help you to delve a little deeper into this type of misleading news.

#### 2.1.1. Concept and types of fake news

Fake news is information that has been intentionally generated to mislead or inform readers. Among other things, they are frequently used to spread misinformation, shape the political agenda, or sway user opinions.

In general, they tend to be impactful news that can circulate quickly, is difficult to stop once it has been recognised, and is vulnerable to virtualization before being contrasted. Even though the public is already aware of this kind of news, it still evolves and spreads in the form of data, images, and even videos.

In the following illustration, we show you some of the types of fake news that exist:

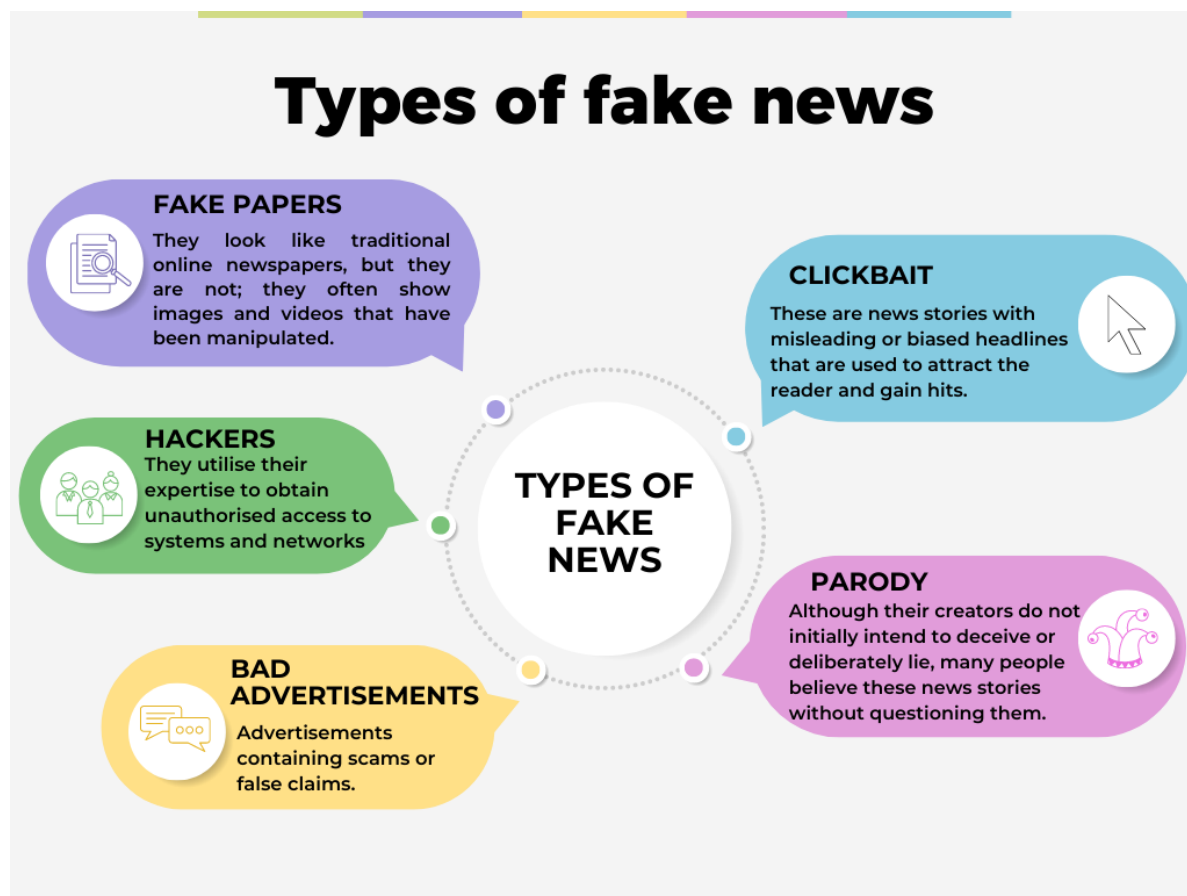


Image 1 - developed by MEUS

Just before the US presidential election, millions of people shared on Twitter that Hillary Clinton and her campaign manager had children locked up as sex slaves in the basement of a Washington pizzeria.

A guy armed with a rifle stormed the pizzeria to save the children, but there wasn't even a basement. So, 46% of the people who voted for Donald Trump believed that the so-called "pizzagate" was true.

So there are many examples, which show us that "fake news" is not a joke, it is intentional, and the vast majority of it is intended to change public opinion to achieve a specific goal. In the next section, we will look at some of how fake news is spread.

But why is this type of content created? *First Draft* sets out eight "P's", reasons that help explain it:

1. Poor journalism
2. Parody
3. Provocation
4. Passion



5. Partisanship
6. Profit
7. Political power or influence
8. Propaganda

Each of the types of misinformation and misleading content contains one of the eight "P's" within it.

But fake news is not something of our modern age, although due to new technologies this kind of news is now spreading faster, let's take a look at some history!



## FAKE NEWS: HISTORICAL TIMELINE

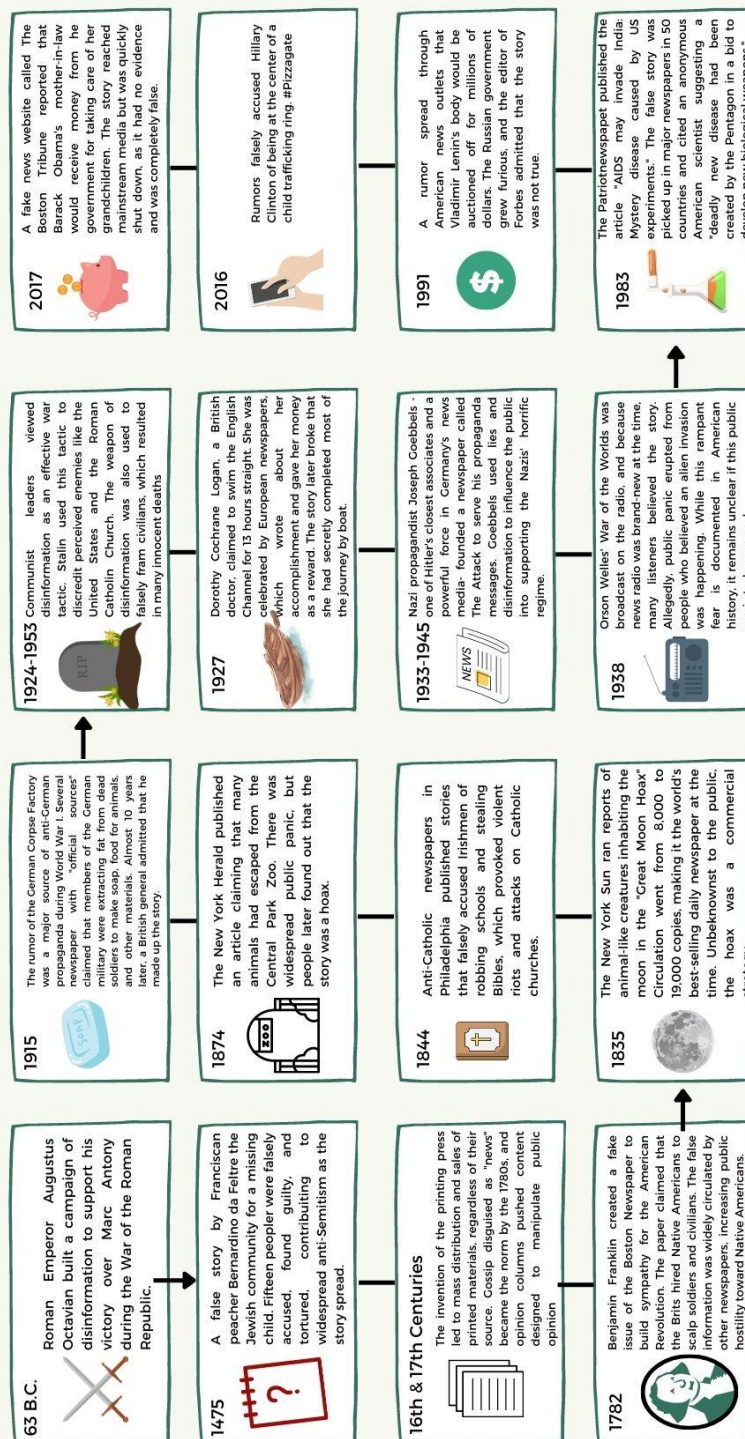


Image 2 - developed by MEUS based on content developed by  
[www.commonsense.org](http://www.commonsense.org)



And **what does journalism have to say about fake news?** The UNESCO website contains some quotes from journalism professionals, which we share below:

*“With growing evidence of interference in democratic processes around the world, the debate over how to expose and eliminate fake news is certain to intensify. But the discussion is already confused by a misunderstanding about the phenomenon, its origins, and why it poses a threat in the first place.*

*To try to illustrate the problem, the Ethical Journalism Network (EJN) has developed a definition for fake news: “Information deliberately fabricated and published to deceive and mislead others into believing falsehoods or doubting verifiable facts.” Using this definition, it is easier to separate propaganda, “alternative” facts, and malicious lies from journalism.”*

**Aidan White, Director,  
Ethical Journalism Network**

*“Fake news poisons the atmosphere that we all operate in. Because fake news exists, audiences are now doubtful about all news. It has really damaged the relationship between audience members and the media.”*

**Verashni Pillay, Editor-in-Chief,  
Huffington Post, South Africa**

*“We easily exaggerate the effect of fake news on journalism. I don’t want to be flippant about it – it is a serious challenge to society and institutionality. The point of fake news is not to tell another narrative, the main aim of fake news is to dismantle the credibility of institutions, including journalism, but not only journalism.”*

**Kari Huhta, Diplomatic Editor,  
Helsingin Sanomat, Finland**

*“There has always been fake news – ever since people realized the power of the media to influence public opinion. However, the difference today is that social media and platforms like Google and Facebook enable fake news to spread widely and more quickly than ever before, and that is the problem.*

*Fake news changes journalism in that it presents a real challenge to journalism because it’s not always that easy to distinguish fake news from real news, but it also makes journalism much more important. Because if anybody is going to call out fake news, it’s the journalist – the responsible journalist, that is. I would say that in the short term, fake news is a problem for journalists. But in the long term, it validates them and gives them increased importance in society.”*

**Ivor Gaber, Professor of Journalism,  
University of Sussex, United Kingdom**



*“Fake news reinforces a traditional mission of journalism, which is trying to shine a light in the dark, for societies and the general public. Our mission has to be reinforced on this core value, trying to illuminate the debate, trying to show the public where the real facts and the real debates are.”*

**Ricardo Gandour, Journalism Director,  
CBN, Brazilian Radio Network, Brazil**

### 2.1.2. How it spreads

Some of the ways through which fake news is spread are:

#### **SOCIAL MEDIA**

The channel through which fake news spreads most strongly is social networks, as nowadays anyone can create and share information on the Internet: we are all producers and consumers of information at the same time, which means that anyone can spread a hoax through social networks and it can easily go viral, especially if it alludes to feelings and emotions.

#### **VIRALITY**

This is the capacity for some content to circulate quickly online and has a significant psychological component attached to it. On social networks, individuals share content that provokes emotions in them, with which they feel positively identified or towards which they feel an unfavorable emotion.

#### **ALGORITHM**

Big Data algorithms analyse consumer data, forecast election outcomes, and are familiar with human preferences. The most well-known algorithm is PageRank, which was developed by Google in 1998. Its success was due to the site crawling and the importance-ranked search results it provided. Since then, the algorithm has changed to incorporate the user's preferences into its calculations (it is not the same to be an adult as a child, or to search in Spain as in the United States).

#### **BOTS**

Spreading also comes from organisations that use botnets and troll farms to try to sway public opinion. Bots, computer programs designed to gather data automatically, display which websites are visited and which things are purchased, as well as by whom and how frequently.

In the context of fake news, bots, fake profiles that are the main propagators of false information on Twitter, have burst onto the scene. It is believed that 9-15% of active Twitter accounts are bots. Social and political bots are designed to manipulate populations into a way of thinking, misinform and propagandise about certain people or issues. The power of these bots has been evidenced in election campaigns, such as the 2016 US presidential election or the Brexit referendum, in the vaccine debate, in



spreading false rumors about terrorist attacks, in manipulating financial markets, and recently in the coronavirus crisis. Coordinated, they can make a lot of noise and relegate other news to the background.

According to the consulting firm Gartner, by 2021 more than half of all companies will spend more money each year on creating bots and chatbots than on developing traditional mobile apps.

The speed with which they spread, and the reach they have, reach further, faster, and to more people than real information. A study published in the [journal Science](#) found that false information spread "significantly farther, faster, deeper and wider" than true information "across all categories of information, and the effects were most pronounced for false political news"<sup>1</sup>.

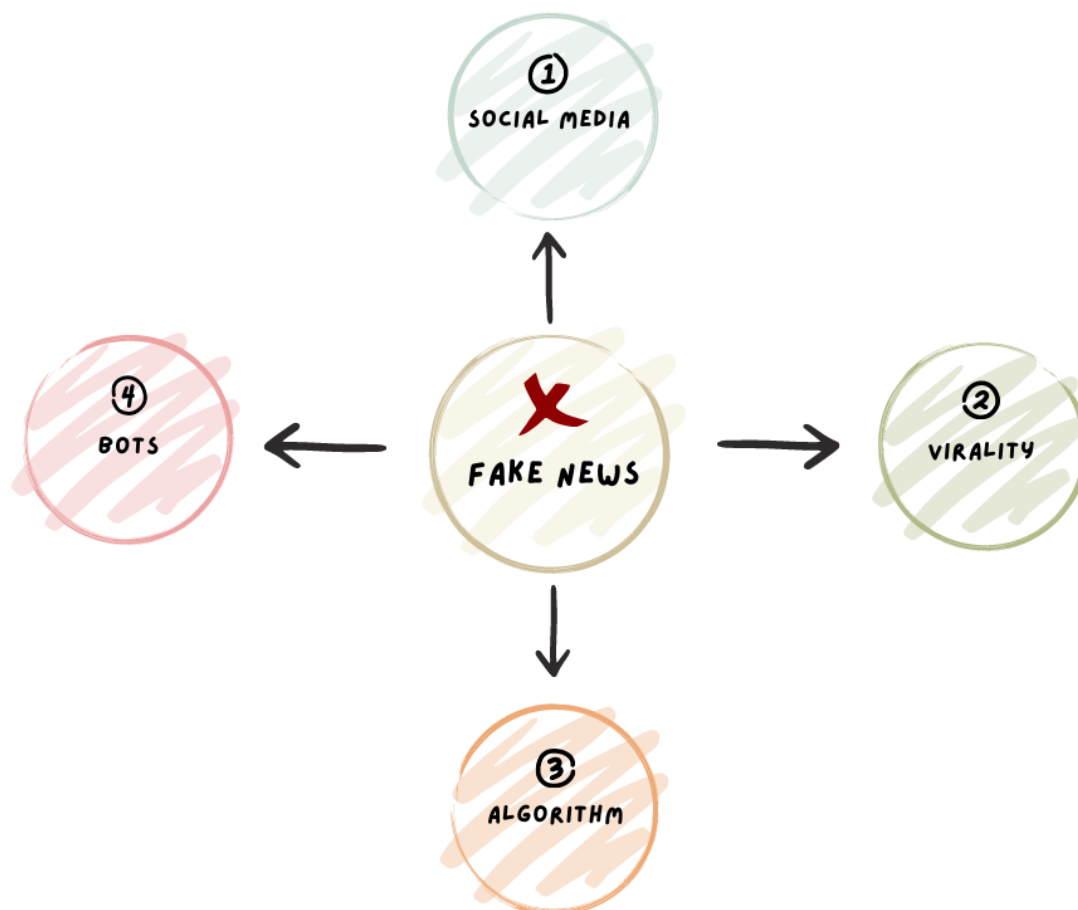


Image 3 - developed by MEUS

<sup>1</sup> Journal Science, "The spread of true and false news online"

### 2.1.3. Why it is believed

A key factor that makes us believe in fake news is the emotions it arouses in us. Fake news plays with our emotions, seeking to generate an emotional and impulsive response that overrides our critical judgment.

An infographic by Eoghan Sweeney summarises very well the feelings that certain content generates in us, we have used his infographic as a basis for developing our infographic, which reflects the same content as the one presented by Eoghan Sweeney:

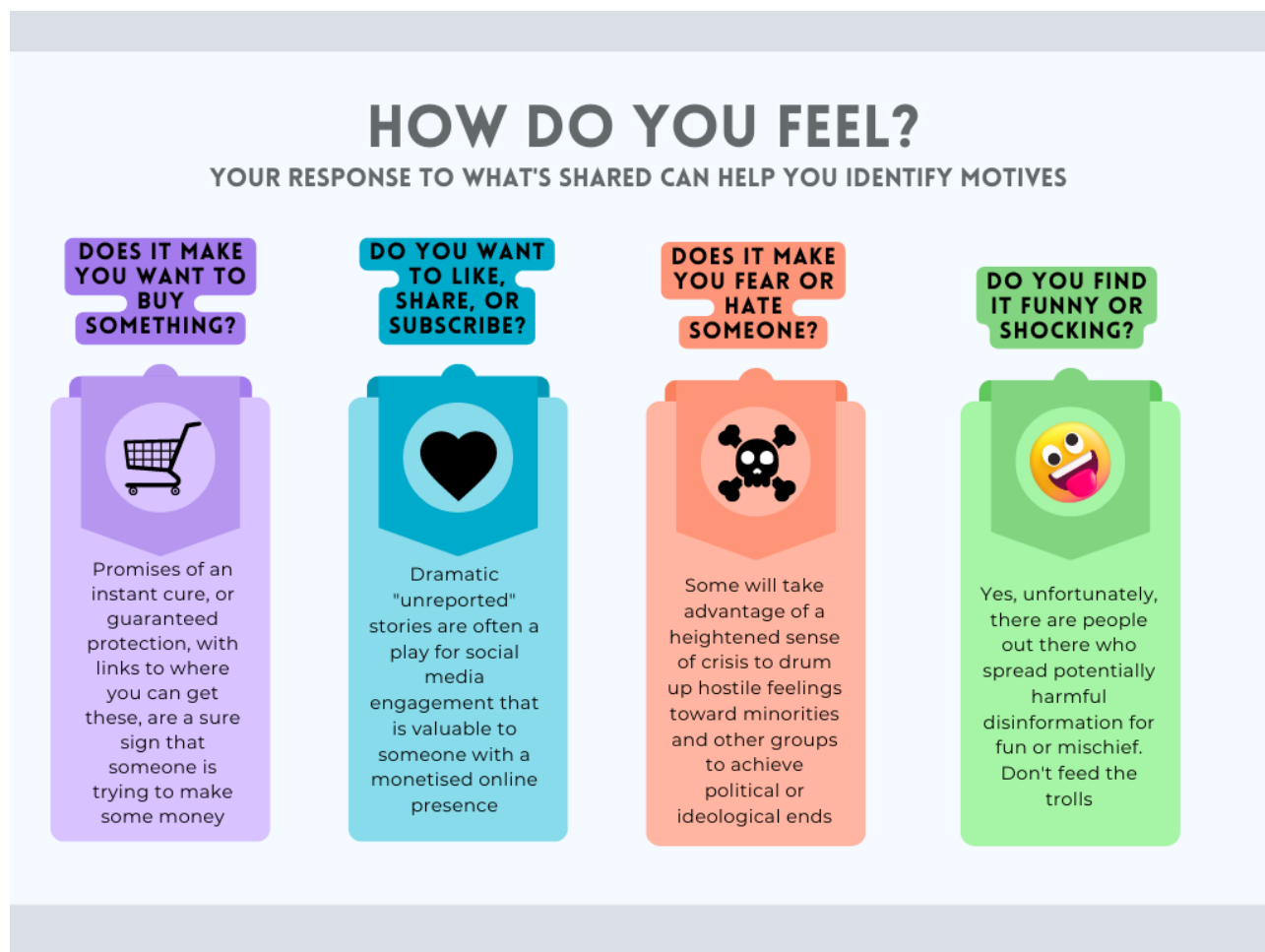


Image 4 – developed by MEUS content of Eoghan Sweeney

But **why do people believe in fake news?** Some factors are:

1. Attribution error: this is what happens when something rings a bell, but we don't remember where we have seen it. It is enough to see a false headline, for example, "immigrants get free flats in Spain", for people to become more sensitive to fake news about immigration in the future.

Moreover, when a lie is repeated, it gives us a false sense of consensus, that everyone thinks this way. This can lead to collective false beliefs, something called



the Mandela effect, as some people think that the South African president died in prison in the 1980s. In reality, he died at home in 2013. Or, for example, the famous plastic bag man was not run over by the tank in the Tiananmen Square protests, although many people believe he was.

2. Confirmation bias: this is the brain's natural tendency to believe that what matches our tastes or opinions is real, even if it is false. In addition, when a news item arouses emotions, it is easier to believe it.
3. Social reinforcement or discrediting those who think otherwise. Beliefs linked to strong feelings seek social reinforcement, to support those who think the same as us and to dismiss or discredit those who think the opposite (even when they provide data and evidence). It is easy for this bias to appear in situations in which a topic arouses strong emotional reactions - political topics - and about which we reason more according to the source or who shares the information. Hoaxes emerge under the false illusion that they are shared by many, when in fact they are spread by bots.

At the University of Michigan, they have developed artificial intelligence that identified "fake news" 76% of the time, while people only got it right 50% of the time.

What can we do? Develop our critical thinking! This is why the MCRE project was born, which will help you develop the necessary skills and competences to detect fake news, and analyse who the source is, in which channel they are distributed, etc. before hitting the forward button.

## 2.2. CONCEPTS SURROUNDING FAKE NEWS

In this section, we present a glossary of concepts related to disinformation. The more you know about these concepts, the easier it will be to detect fake news.

### 2.2.1. Disinformation

False information is deliberately disseminated to mislead.

Because there is no universal agreement on its definition, disinformation is currently preferable to fake news. This is recommended by the European Commission's Expert Group Report ["A multidisciplinary approach to disinformation"](#), which rejects the use of the term "fake news". To put an end to the inaccuracy of the term, the European Commission (EC) coined the concept of "information disorder", a term that includes:

- "Misinformation", i.e. false information shared on networks but with no intention of causing any harm.
- "Disinformation" or false information, is shared intending to inflict harm.
- "Mal-information", where truthful information is shared to cause harm, such as by revealing private information in the public sphere.



### 2.2.2. Postruth

Oxford defines it as the phenomenon that occurs when "objective facts have less influence in defining public opinion than those appealing to emotion and personal beliefs", and it has been a term widely used during President Trump's election campaign and also with the Brexit campaign in the UK. Post-truth was voted word of the year 2016 by The English Oxford Dictionary, with its use having shot up by 2000%.

### 2.2.3. Infodemics

The World Health Organisation (WHO) uses the word infodemic to refer to the overabundance of false information and its rapid spread, which makes it difficult to find reliable and trustworthy resources.

### 2.2.4. Hoaxes

Although hoaxes are not new phenomena, modern technology has given these lies a capacity for dissemination and a viral influence that was before unimaginable, even having an impact on how democratic countries conduct elections. Because it makes it easier to produce and distribute false information, the Internet has contributed to the spread of fake news.

### 2.2.5. Deepfakes

According to Andrés Visus, Professor of Undergraduate, Postgraduate, and Executive Education at ESIC, "a deep fake is a video that displays synthetic images, typically of a person's look, that appear to be real and were created using artificial intelligence. In this case, it refers to machine learning techniques called deep learning, which use neural network algorithmic techniques."<sup>2</sup>

### 2.2.6. Scams

In an online scam, criminals utilise online platforms to coerce a victim into revealing personal information like bank account logins or account login credentials. Scams can occur on any online service.

Some examples are:

- **Phishing emails or messages** sent to a personal device that demand money or ask for personal information. These can occasionally be made to appear to be coming from reputable organisations or companies.

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<sup>2</sup> <https://www.esic.edu/rethink/tecnologia/deep-fakes-que-es-como-se-crean-primeros-y-futuros>



- **Promotion of products or misleading advertisements**, where they encourage you to buy products that offer things they can't actually offer.
- **Competitions or quizzes** that make you believe that there will be a prize if you participate.
- **Catfishing** where some will pretend to be someone else to trick them into doing something.
- **Identity theft** where people are tricked into sharing personal information to help them hack other accounts.

### 2.2.7. Online challenges

An online challenge is a task that typically entails posting an image or video of your performance of the assigned assignment. They can occur on almost all online platforms, but YouTube and TikTok are where they happen the most frequently.

Young individuals may enjoy taking part in several online challenges. For instance, contests that include dancing or ones that support charitable causes. However, when they include risky stunts or activities that could hurt a young person or others physically or psychologically, online challenges can turn dangerous. Creators of videos can easily modify their work to make it appear as though they took a risk or did something harmful when in fact they didn't.

## 2.3. HOW TO SPOT FAKE NEWS

Now that you know the basics, in this last section of the module, we will discuss the importance of truth, and give you the tools you need to detect fake news.

### 2.3.1. The importance of truth

Lying and disinterest in telling the whole truth have become part of our culture, which has enormous consequences because we are used to accepting information as it comes in without bothering to always seek the truth. We hear information that is later disproved, but this has no repercussions for the person who has not told the truth, nor is it usually corrected.

Truth, because it gives meaning to respect for others, is an ethical value, one of the fundamental pillars underpinning the moral conscience of a community, and encompasses all spheres of human life.

Telling the truth helps us to empathise and build strong and lasting relationships. It makes us more human, and closer and allows us to relate more and better to the people we love.

This also happens on a personal level. We have been educated to be politically correct and when faced with the opportunity, to be honest, and confront a specific problem, we



run away feeding the lie over and over again. Not only on a personal level but especially in the workplace. We run away from conflicts and miss opportunities, to tell the truth. When, by expressing value judgments, politely, we can help one another to build lasting relationships.

The consequences of not being truthful cause problems to grow infinitely because we have not dared to speak the truth. If we all sought to live in truth and seek the truth, less fake news would be generated, or at least we would have the spirit to fight against lies, to constantly seek the truth.

### **And what does truth have to do with journalism?**

Most codes of ethics consider respect for the truth as the first ethical principle that must inspire the behaviour of all information professionals. However, the daily practice of journalism too often departs from this moral criterion. The journalist, as an individual, is pressured by all kinds of pressures: the businessman or editor sets the lines of information, and the political or economic interests to which his medium is beholden promote the behaviour of poor moral quality...

In many cases, the truth is not the fundamental objective of journalistic information. Sometimes it is achieved by omitting essential information about a fact, distorting the informative material, not to mention the occasions when the aim is to indoctrinate, manipulate and, in short, deceive rather than to transmit the complexity of the facts with the utmost rigor.

For journalists, the word truth means fidelity to the facts they report. That is why their truths are provisional, that is, penultimate words because the facts evolve and there will always be something to add to them. The journalist is therefore always ready to correct, add or clarify his or her information about the facts, but this is not always the case.

If we educated citizens and helped them to be "truthful" if we had a society that demands and values the truth, journalists, companies, and all those who use fake news to achieve certain interests would change their minds and at least consider whether it is worth living in a society of lies.

### **Dare to be honest!**

If you have already understood why the value of sincerity is important, you may be interested in knowing how to be a sincere person. You should know that it will take time. You don't become a sincere person overnight, because it is not enough to reduce the number of lies or to express frankly what you think.

You can start being honest with small steps, which will guide you to gradually integrate the characteristics of a sincere and honest person. To get started, we recommend following the tips below:



# How to be a sincere person

Dare to be honest!



## Acknowledge your own dishonesty

If you want to improve, you first have to acknowledge the problem, so think about the times you have been dishonest with someone in the past and admit that, in some circumstances, you have behaved dishonestly.



## Put yourself in the shoes of others.

Imagine being in the shoes of people with whom you have often been disingenuous, how would you feel about being cheated?



## Face your fears

If you have sometimes been dishonest with others, perhaps it is because you were afraid of exposing yourself to negative judgement from them.



## Be honest in the small things

To get into the habit of being honest, start with the little things.



## Use the right words

There are ways and means of expressing a sincere thought. It all depends on the words we use. Try to be assertive!

Image 5 – developed by MEUS



### 2.3.2. Learning to refute fake news

We need to develop the practise of healthy skepticism to counter these hoaxes and false information. To verify information, bear the following in mind:

1. **Verify the author and source's credibility.** Verify the news's signature. Better yet, if information such as an email address, Twitter account, or profile on a website or social network is provided in addition to the complete name because this will show that there is a person behind the information who is capable of taking responsibility for it.
2. **Do not stop at the headline.** It is advisable to read the whole story. Alarmist headlines are looking for our clicks, it is necessary to read the whole content of those news items that are very striking to you.
3. **Be wary of simplistic, exaggerated language,** or language that is more focused on the emotional than on transmitting reliable information.
4. **Does the news item have data, graphs, and statements?** Check that the data must have links to the sources consulted and the statements must come from an identifiable person.
5. **Ignore WhatsApp chains,** and above all, do not continue them! In the same vein, do not take into account audios or videos whose origin we do not know. Find the original content to find out where and when it was generated and by whom. We should ask ourselves how this news reached us: our friends and family can also make the mistake of not checking dubious content and forwarding it to their closest circle.
6. Is the news so shocking that you can't believe it? Or is it so shocking that you believe it? **Analyse your emotional response.** Both reactions are warning signs. Many fake news stories play on our pre-existing beliefs.
7. **Look it up and cross-reference** it with other reliable sources of information if you have any doubts about a piece of information. Compare the outcomes when you Google it.
8. Consider the **ideological bias of excessively politicised content.** In situations of extreme uncertainty such as the one we live in, disinformation is of interest for political gain or economic benefit.
9. **Beware of pseudo-therapies.** Science can be proven with facts and its publication is subject to a system of control, while pseudoscience is based on unproven hypotheses and theories.
10. We will **check the veracity of suspicious images** and videos we receive using Google's reverse image search. Find a tutorial in Chapter 3 Further reading and also following this [link](#).

### 2.3.3. What is doing Europe regarding fake news?

The “Action Plan Against Disinformation” was produced by the European Commission in 2019. The European Council requested between June and October 2018 that an action plan be developed to address the issues in this area, particularly in light of the upcoming



European elections. How to combat misinformation is a key topic, both within the EU and in its surrounding countries.

The Action Plan Against Disinformation aims at:

- Improving detection, analysis, and exposure of disinformation.
- Strengthening cooperation and joint responses to disinformation.
- Mobilizing the private sector to tackle disinformation.
- Raising awareness and improving societal resilience.

In this Action Plan, disinformation is defined as verifiably false or misleading information that is created, presented, and disseminated for economic gain or to intentionally deceive the public, and may cause public harm.

According to a survey conducted for developing this Action Plan, 83% of Europeans think fake news is a threat to democracy and 73% of internet users are concerned about disinformation online in the pre-election period.

In addition to the European disinformation plan, many actions have been taken in Europe to fight disinformation. Below is a chronology of the actions that have been carried out by the European Union institutions, which are shared on the [Commission's website](#).

### **Chronology of EU's actions against disinformation**

From 2015 onwards, the EU and Member States reinforced their approach against disinformation.



### March 2015

Launch of the East StratCom Taskforce in the European External Action Service

### April 2016

#### **Joint Framework on countering hybrid threats**

A comprehensive approach to improve the common response to the challenges posed by hybrid threats to Member States, citizens and the collective security of Europe.

### March 2018

Report of the independent High-Level Expert Group on fake news and online disinformation recommending to tackle pressing problems and longer-term responses to increase societal resilience to disinformation

### April 2018

Communication on tackling online disinformation inter alia announcing the code of Practice on Disinformation

### September 2018

Communication on securing free and fair European elections

### October 2018

#### **Code of practice on disinformation**

An innovative self-regulatory tool to ensure greater transparency and accountability of online platforms, and a framework to monitor and improve online platforms' policies on disinformation.

### December 2018

#### **Action Plan against disinformation**

Sets the framework of the EU's actions by improving detection and analysis capabilities, raising awareness, strengthening societal resilience, increasing coordinated responses, and mobilising online platforms and the advertising sector.

### March 2019

Launch of the Rapid Alert System against disinformation.



## June 2020

- **Communication: Tackling COVID-19 disinformation and launch of the COVID-19 disinformation monitoring programme**  
A transparency measure to ensure accountability towards the public of the efforts made by the Code's signatories to limit online disinformation related to COVID-19.
- **Launch of the European Digital Media Observatory**  
Creates and supports a multidisciplinary community, including fact-checkers, academic researchers and other relevant stakeholders contributing to addressing disinformation.
- **Report on the 2019 elections to the European Parliament**

## December 2020

- **Proposal for a Digital Services Act**  
Defines clearer responsibilities and accountability for online platforms tailored to their respective role, size and impact in the online ecosystem.
- **European Democracy Action Plan**  
Includes actions to improve the EU's existing toolbox for countering foreign interference, such as imposing fines and the guidance to strengthen the Code of Practice on Disinformation.

## May 2021

- **Guidance for Strengthening the Code of Practice on Disinformation**  
Commission's views on how platforms should address gaps and shortcomings in the Code and create a more transparent, safe and trustworthy online environment.
- **Launch of the European Digital Media Observatory national hubs**  
To increase the capacity of detecting, analysing and exposing disinformation campaigns.

## June 2021

Launch of the revision process by the signatories to the 2018 Code and additional new prospective signatories.

## November 2021

Legislative proposal on the transparency and targeting of political advertising

## June 2022

Strengthened Code of Practice



Disinformation is a cause for concern for European citizens and for democratic governments, since behind fake news there is always an interest in manipulating public opinion and destabilising states and their institutions, endangering democracy and freedom, which is why the European Commission is working on it.

### 3. FURTHER READING

Here we provide you with extra content to go deeper in the topic of this Module:

#### VIDEOS

- [Google Image Search: How can I verify, track, or find information about an image?](#)
- [Here's How Fake News Works \(and How the Internet Can Stop It\)](#)
- [Why Do Our Brains Love Fake News?](#)
- [How Does "Fake" News Become News?](#)
- [5 ways to spot fake news](#)
- [How do fake news sites make money?](#)
- [How to choose your news?](#)

#### FACT CHECKING WEBSITES:

- [FactCheck.org](#)
- [Politifact.com](#)
- [Snopes](#)
- [TruthorFiction](#)
- [Hoax-Slayer](#)

#### Action Plan Against Disinformation

### 4. BIBLIOGRAPHY

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[A multi-dimensional approach to disinformation](#)

<https://www.psicologia-online.com/caracteristicas-de-una-persona-sincera-6043.html>

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[https://uned.libguides.com/noticias\\_falsas/herramientas/cajas](https://uned.libguides.com/noticias_falsas/herramientas/cajas)



# MODULE 2: Why we need critical thinking and a critical view



## 1. AIM AND LEARNING OBJECTIVES

### 1.1. AIM OF THE MODULE

The aim of the module is to introduce learners to the concepts of critical thinking and critical view, which play a special role nowadays, especially when it comes to organising and identifying information that can be found by the hundreds on the Internet every day. The module is designed to introduce learners to the reasons why they need critical thinking, why it is important and necessary, and to identify areas where critical thinking and a critical view brings tangible benefits to those using both techniques.

Why is critical thinking so important and why do we focus on this topic? The choices you make affect the quality of your life. And if you want to live your best, most successful and happiest life, you need to make informed decisions. You can achieve this through a simple method known as critical thinking.

Critical thinking is extremely important, especially in this day and age, when information spreads very quickly through social media and other online platforms. We cannot simply assume that everything we see or read in the media is the truth. Among other things, this issue will be addressed in this module. Through the content included here, the learner will learn how critical thinking skills are able to provide tangible benefits and why it is difficult to operate in a variety of areas of life without this skill.

### 1.2. LEARNING OBJECTIVES

By the end of this module, you will be able to:

- Understand what critical thinking is and what it entails;
- Identify areas where critical thinking is essential in everyday life;
- Identify the benefits that critical thinking brings to particular aspects of everyday life;
- Know what critical view is and in which situations it is used.

## 2. LEARNING CONTENT

### 2.1. THE CONCEPT OF CRITICAL THINKING AND CRITICAL VIEW

In order to have a good understanding of the topic and to be able to put into practice the issues discussed in this module, let us start with simple definitions.

Let us start by noting that the concept of critical thinking dates back to the mid-20th century. Many of the world's great philosophers, thinkers and reformers have defined the



term critical thinking in their own words. Although there are many definitions of the term, each essentially encapsulates the essence of what the term critical thinking is. Let us look at one such definition.

*Critical thinking* is the **ability to analyse and evaluate information and arguments independently and objectively**. It encompasses a critical approach to different ideas, theories, claims and situations in order to effectively solve problems, make decisions and draw conclusions.

It is a **process** in which a person **carefully analyses** data, arguments or situations rather than accepting them unconditionally. Critical thinking includes the ability to identify ambiguity, recognise logical fallacies, evaluate sources of information, consider different perspectives and draw conclusions based on **sound analysis**.

Simply put, critical thinking allows you to develop new ideas and perspectives that are different from others. It also helps to make the right decisions. In addition, people who think critically save a lot of time, money, resources, and effort by choosing the right things and removing the wrong and useless ones.

The ability to think critically helps people both in their personal and professional life and is valued by most employers.

*Critical view*, on the other hand, is a concept similar to critical thinking and is a kind of complement to it. Critical view refers to **the ability to examine and analyse information, ideas, and situations in an objective and sceptical manner**. It involves questioning assumptions, evaluating evidence, identifying biases, and considering alternative perspectives. Critical view allows us to move beyond superficial understanding and encourages a deeper examination of underlying factors, implications, and potential consequences.

Cultivating a critical view is essential for informed decision-making, intellectual growth, and a more discerning and thoughtful engagement with the world around us. It empowers us to navigate complex issues, challenge established norms, and contribute to a more rational, inclusive, and informed society.

### 2.1.1. Critical thinking skills

It is troublesome to find a universal scheme to represent the skills that make up critical thinking. However, it is possible to single out some of those widely regarded as the most important in this field. Concentrating on them can make each of us an exceptional critical thinker.

Therefore, let's have a look at a list of key skills when it comes to critical thinking:

- Connection between critical thinking and **identification**. Critical thinking and identification are interrelated because critical thinking is based on the ability to accurately analyse and recognise different elements in a situation or problem. Identification involves the precise identification and understanding of relevant



information that supports the critical thinking process, while critical thinking enables effective evaluation and interpretation of this information.

- The significance of **research**. Independent information searching is highly valuable. Arguments are designed to be persuasive, which means that supporting facts and figures may be presented out of context or originate from unreliable sources.
- Identifying biases. The challenging skill of objectively evaluating information and recognizing biases.
- Inference. The ability to deduce and draw conclusions based on the information presented. The ability to infer allows you to explore and discover possible outcomes when evaluating a scenario. It is important to remember that not all conclusions will be accurate.
- Curiosity. By combining curiosity with critical thinking, our ability to understand, analyse and comprehensively evaluate information can be enhanced. These are essential skills that allow us to become independent thinkers and make better decisions in various aspects of life.

It is important to develop critical thinking skills while maintaining moderation and flexibility. Working on these skills requires a conscious balance between analysis and openness to new ideas as well as new perspectives.

Critical thinking skills develop gradually and may require practice. It is not always easy to show all the signs in all situations, but pursuing critical thinking can help you better understand the world around you and make more rational decisions. In fact, the more you practice, the more positive results you will experience.

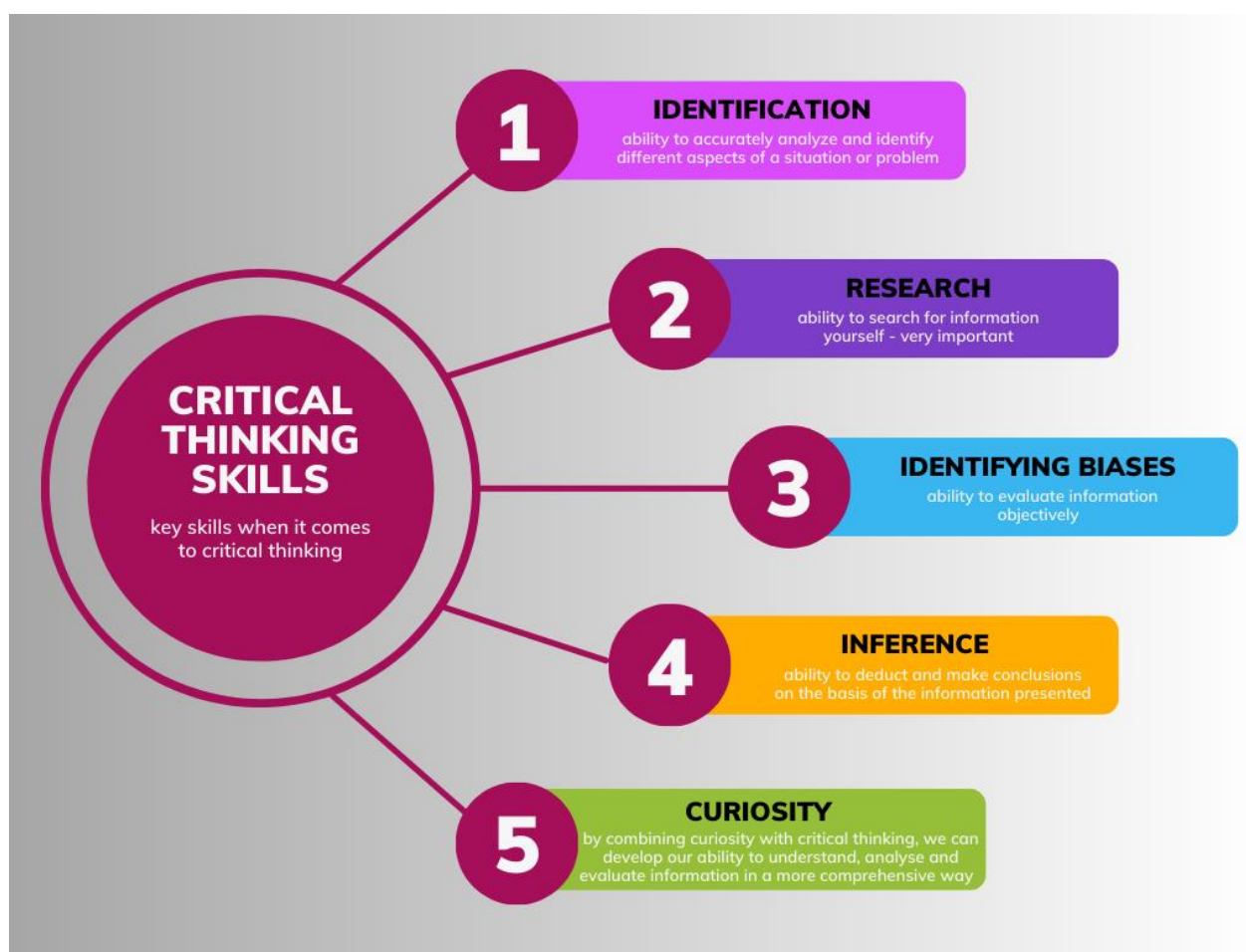


Image 1: Created by ADES

### 2.1.2. Critical thinking process

It is important to acknowledge that critical thinking is not always present in our thoughts. There are times when our thinking deviates from critical analysis, such as when our emotions like anger, grief, or joy influence our self-control, or when we are simply being stubborn. However, the positive aspect is that our critical thinking ability is not fixed; it can vary based on our current mindset. This means that most of the time, we have the potential to enhance our critical thinking skills by incorporating certain routine activities and applying them to any problems we encounter.

**Once we grasp the underlying principles of critical thinking, the key to improving our critical thinking skills lies in persistence and practice.**

To help you start thinking critically, you can try the exercise<sup>3</sup> below. It involves analysing what you have been told, using questions.

<sup>3</sup>Source: <https://www.skillsyouneed.com/learn/critical-thinking.html>



Think of something someone has said to you recently. Then ask yourself the following questions:

<b>Who said it?</b>	Someone you know? Someone with authority or power? Does it matter who told you this?
<b>What did they say?</b>	Did they present facts or opinions? Did they give all the facts? Did they leave anything out?
<b>Where did they say it?</b>	Was it in public or in private? Did other people have a chance to respond and provide an alternative narrative?
<b>When did they say it?</b>	Was it before, during or after an important event? Did the timing matter here?
<b>Why did they say it?</b>	Did they explain the reasons for their opinion? Did they try to make someone look good or bad?
<b>How did they say it?</b>	Were they happy or sad, angry or indifferent? Did they write it or say it? Could you understand what was said?

## 2.2. WHEN IS CRITICAL THINKING NECESSARY

Critical thinking is necessary in various aspects of life when we encounter complex situations, challenging problems, or the need to make informed decisions. It is an essential skill that helps us analyse information, evaluate arguments, and arrive at well-reasoned conclusions. Whether in personal, professional, or academic contexts, critical thinking allows us to navigate through the complexities of the world, think independently, and make informed judgments. It enables us to question assumptions, identify biases, and approach issues with an open mind, leading to more effective problem-solving, better decision-making, and a deeper understanding of the world around us. Ultimately, critical thinking is a valuable skillset that empowers us to navigate the complexities of life with clarity, logic, and intellectual rigor.

In general, critical thinking is essential in different aspects of life and in different contexts.

Here are some situations in which critical thinking is particularly important:

- **Problem solving.** When faced with challenging or complex problems, critical thinking helps to analyse situations, identify potential solutions, and make informed decisions based on available evidence and logical reasoning.
- **Decision making.** Critical thinking plays a key role in evaluating options, weighing pros and cons, and considering potential consequences before making a choice. It helps to minimise biases and make informed decisions.
- **Evaluating information.** In an age of information overload, critical thinking helps individuals assess the credibility, reliability, and relevance of the information they encounter. This involves analysing sources, verifying facts, and distinguishing between credible information and misinformation.
- **Analysing arguments.** Critical thinking enables individuals to assess the strength of arguments, identify logical fallacies, biases, and faulty reasoning. It involves



questioning assumptions, examining evidence, and assessing the consistency and validity of claims.

- **Engaging in debate and discussion.** Critical thinking is essential for constructive and meaningful engagement in debates and discussions. It enables individuals to actively listen, consider different perspectives, evaluate evidence, and make informed contributions to the exchange of ideas.
- **Professional and academic context.** Critical thinking is highly valued in the workplace and academia. It helps professionals to solve problems, make informed judgements and adapt to changing circumstances. In academia, critical thinking is essential for conducting research, analysis and developing sound arguments.
- **Ethical considerations.** Critical thinking assists in ethical decision-making by assessing ethical implications, considering multiple perspectives, and evaluating the consequences of actions.

Overall, critical thinking is essential in situations requiring objective analysis, informed judgement, problem solving and effective decision-making. It enhances intellectual autonomy, enables individuals to think independently and fosters a deeper understanding of the world around them.

### 2.2.1. Critical thinking in everyday life

Critical thinking is invaluable in everyday life as it empowers us to navigate various situations with clarity and rationality. It helps us to make informed decisions, analyse information, solve problems, and evaluate situations.

More generally, critical thinking is a fundamental skill that enhances our ability to engage with the world around us. It enables us to make more informed choices, solve problems effectively, critically evaluate information and communicate thoughtfully. By applying critical thinking to everyday life, we can cope with challenges, make better decisions, and lead more satisfying and intellectually enriched lives.

Here are some examples of how critical thinking can be useful in different spheres of life:

- **Work.** In the workplace, critical thinking enables us to analyse data, evaluate options, and make informed decisions. It supports problem-solving, helps identify cause-and-effect relationships, and encourages the exploration of innovative solutions. Following, critical thinking abilities are an important resource to a worker, as bosses tend to esteem candidates who can accurately survey a circumstance and discover a coherent arrangement. Time could be a valuable asset for most managers, and a worker competent of making the correct choices without supervision will spare both the director and the company as an entire a parcel of profitable time.
- **Personal life.** Critical thinking is valuable in personal life as well. It empowers us to evaluate information encountered in media, news, or scientific articles, helping us navigate through biased or misleading messages. It fosters self-reflection, enabling us to analyse our beliefs, actions, and choices more objectively.



- **Interpersonal relationships.** Critical thinking enhances our ability to build healthy interpersonal relationships. By analysing our own attitudes and behaviours, we can better understand their impact on others. Critical thinking also helps us actively listen to others, understand their perspectives, and recognize manipulative or exploitative behaviours.
- **Consumption and shopping.** In the realm of consumption and shopping, critical thinking is essential. It enables us to critically evaluate advertisements, reviews, and product information. Through analysis, we can assess the quality, benefits, and costs of products, avoiding falling into marketing traps and making well-informed purchasing decisions.

Overall, critical thinking plays an important role in the workplace, personal life, interpersonal relationships, and consumer decision-making. It enables us to think independently, make sound judgements and navigate the complexities of our daily lives.

It is worth mentioning that critical thinking is an extremely important set of skills in today's world full of information and diverse perspectives.

Here are some examples of how critical thinking can help us in our daily lives:

- **Media and information.** Critical thinking is instrumental in shielding us from the influence of disinformation and fake news. It enables us to critically evaluate the information we encounter, discerning reliable sources from unreliable ones.
- **Politics and public debates.** Critical thinking empowers us to make more informed decisions in the realm of politics. It allows us to analyse and evaluate arguments presented in public debates, enabling us to form well-grounded opinions and engage in constructive discussions.
- **Consumer culture.** Critical thinking enables us to analyse advertising and promotions critically. It equips us with the ability to evaluate the quality of products and services, making purchasing decisions that align with our individual needs and values.
- **Social relations.** Critical thinking assists us in analysing social situations, evaluating the behaviour of others, and making decisions based on our values and intentions. It enables us to navigate emotional manipulation and make well-informed choices about our relationships.
- **Education and personal development:** Critical thinking fosters a mindset of scepticism, investigation, and the pursuit of deeper knowledge. It promotes a better understanding of the world and encourages personal growth and development.



Image 2: Created by ADES

### 2.3. THE BENEFITS OF CRITICAL THINKING

Critical thinking has numerous implications and benefits at both the person and social levels. Here are a few of them:

- increasing creativity,
- increasing innovation,
- open-mindedness and tolerance of different perspectives,
- making better, more informed decisions,
- building better relationships,
- solving problems more effectively,
- personal development,
- stronger analytical skills,
- effective communication,
- handling ethical conflicts safely,
- optimal resource management,
- increased self-awareness,



- adaptability and flexibility,
- more detailed risk assessment,
- lifelong learning.

Critical thinking enables individuals to approach complex problems with a logical and systematic mindset, leading to more effective and efficient problem resolution. It also helps in avoiding hasty or impulsive decisions and fosters the ability to make sound judgments based on evidence and logical reasoning. Critical thinking strengthens analytical skills by improving the ability to evaluate information, identify patterns, and draw logical conclusions. It enhances individuals' capacity to assess the credibility and reliability of sources, critically analyse arguments, and make well-reasoned judgments. It promotes effective communication skills by encouraging individuals to express their thoughts clearly, listen actively, and consider different perspectives. It enhances the ability to articulate ideas, present logical arguments, and engage in constructive dialogue, fostering better understanding and collaboration in personal and professional relationships. It helps individuals recognize their own biases and challenges preconceived notions, leading to more inclusive and empathetic interactions with others. It prompts individuals to examine their own beliefs, biases, and assumptions, allowing for personal growth and development.

By being aware of their own thought processes and cognitive biases, individuals can make more informed choices and continuously improve their thinking skills. Critical thinking promotes adaptability and flexibility in the face of changing circumstances or new information. It encourages individuals to re-evaluate their assumptions, adjust their thinking and modify their approach when necessary. This adaptability is valuable in navigating complex and dynamic environments. Critical thinking also fosters a mindset of continuous learning and intellectual curiosity. It encourages individuals to seek out new knowledge, explore different perspectives and engage in intellectual challenges. It enhances the ability to critically evaluate information and engage in lifelong learning for personal and professional development. The ability of critical thinking and critical view not only helps to solve existing problems, but also helps to anticipate potential trouble. By critically analysing situations, identifying patterns and assessing risks, individuals can proactively address challenges before they escalate, leading to more effective problem prevention and risk management.

In general, critical thinking offers a range of benefits, including effective problem-solving, improved decision-making, enhanced creativity and innovation, stronger analytical skills, effective communication, open-mindedness, increased self-awareness, adaptability, lifelong learning, and better problem anticipation. By cultivating and applying critical thinking skills, individuals can navigate complex situations, make informed choices, and thrive in various personal and professional endeavours.

The following section will discuss in more detail the key benefits that are achievable by putting critical thinking skills into practice.



### 2.3.1. Critical thinking promotes creativity

Can critical thinking promote creativity? Absolutely! As we already know, critical thinking is the ability to analyse, evaluate and synthesise information in order to develop our own conclusions and solutions. When we are able to think critically about problems and challenges, we pose questions, explore different perspectives, consider alternatives and examine consequences. What is important here is the balance between thinking critically and demonstrating creativity.

Critical thinking encourages individuals to think outside the box, challenge assumptions, and explore alternative possibilities. It fosters creativity and innovation by promoting the generation of unique ideas, making connections between different concepts, and approaching problems from different angles. Critical thinking is closely linked to creativity and often acts as a catalyst for innovative ideas and problem-solving.

Engaging in critical thinking allows us to uncover non-obvious connections between facts, detect hidden patterns, and generate original ideas. By posing questions and igniting our curiosity, critical thinking stimulates the creative process, leading to the emergence of novel concepts.

Moreover, critical thinking plays a vital role in evaluating and enhancing existing ideas. By analysing the strengths and weaknesses of different solutions, we can refine our concepts, innovate, and develop a more creative and effective approach. Critical thinking empowers us to critically assess and evolve our ideas to drive innovation and progress.

Critical thinking has many positives that encourage creativity. The most important of these are:

- analysing problems,
- catching errors,
- creative problem solving,
- evaluating and refining ideas.

However, it is important to note that critical thinking and creativity do not always have to work in combination. Critical thinking can sometimes inhibit creativity, especially when it is too critical or confined to traditional frameworks and thought patterns. It is therefore important to find a balance between analysis and imagination in order to develop both critical thinking and creativity.



Image 3. Source: [Freepik](#)

There are various exercises geared to promote critical thinking and at the same time develop creativity. One of these is an exercise called 'six hats of thinking'. This is a popular exercise developed by Edward de Bono. Would you like to find out what it consists of? This link will provide you with the information: [Six Thinking Hats technique](#).

In summary, critical thinking plays an important role in promoting creativity. By challenging assumptions, assessing perspectives, solving problems, generating alternative solutions, making connections, embracing ambiguity, and learning from mistakes, critical thinkers are able to think creatively and contribute to innovative ideas and solutions. However, it is important to remember that sometimes critical thinking can inhibit creativity when it is too formulaic and too critical. Therefore, a balance between the two is extremely important.

### 2.3.2. Critical thinking improves relationships

Does critical thinking play an important role in interpersonal relationships? Yes, it can indeed improve relationships! When we use critical thinking in interpersonal relationships, we can better understand, interpret, and respond to situations, leading to healthier and more constructive interactions.

Here are some ways in which critical thinking can positively impact relationships:

1. **Effective communication.** Critical thinking involves active listening, evaluating information, and responding thoughtfully. By applying critical thinking skills, individuals can communicate more effectively, express their thoughts and opinions clearly, and understand others' perspectives. This leads to better understanding, better communication, and fewer misunderstandings in relationships.



2. **Conflict resolution.** Critical thinking enables individuals to approach conflicts in a rational and objective manner. It helps in analysing the root causes of conflicts, identifying possible solutions, and evaluating their consequences. By applying critical thinking skills, individuals can find common ground, negotiate compromises, and resolve conflicts in a constructive and respectful manner.
3. **Situation analysis.** Critical thinking enables us to look at a situation from different perspectives. It allows us to assess what the facts are, what our own beliefs are, and what the intentions of others are. This helps us to avoid making hasty judgments and to better understand other people's motivations and needs.
4. **Empathy and understanding.** Critical viewing encourages individuals to consider multiple perspectives and think beyond their own biases and assumptions. This mindset promotes empathy and understanding in relationships. By actively seeking to understand others' viewpoints, critical thinkers can foster deeper connections, build trust, and promote healthier interactions.
5. **Problem-solving.** Critical thinking equips individuals with problem-solving skills that can be applied to relationship issues. It helps in identifying and addressing underlying problems, analysing possible solutions, and evaluating their potential outcomes. By using critical thinking, individuals can work together to find effective resolutions and make informed decisions that benefit the relationship.
6. **Evaluating assumptions and biases.** Critical thinking involves questioning assumptions, beliefs, and biases. By applying this approach to relationships, individuals can challenge preconceived notions and biases that might hinder effective communication and understanding. This self-reflection helps in fostering more open-minded and inclusive relationships.
7. **Growth and learning.** Critical thinkers are open to learning and personal growth. They value constructive feedback and are willing to self-reflect and adapt their behaviours and perspectives. In relationships, this willingness to grow and learn fosters a healthy environment for personal development and strengthens the bond between individuals.
8. **Self-awareness.** Critical thinking also requires us to reflect on our own beliefs, biases and mistakes. It helps us identify our weaknesses and areas where we can improve. This leads to greater self-awareness and capacity for self-development, which benefits our relationships with others.

### How might being a critical thinker affect your life and relationships?

Being a critical thinker can positively impact your life and relationships in several ways. Firstly, it enables you to better understand other people's perspectives and be open to a variety of viewpoints. Secondly, it helps you to communicate your feelings and thoughts effectively.

Being a critical thinker also allows you to better understand other people's perspectives and can help you become more open to different views. It is an important tool in building healthy interpersonal relationships. It helps us to better understand other people, communicate effectively, make informed decisions, and solve problems. Through critical



thinking we can create more supportive, empathetic, and constructive relationships with other people.

In summary, critical thinking improves communication, promotes effective conflict resolution, cultivates empathy and understanding, assists in problem solving, helps assess assumptions and biases, builds trust and credibility, and encourages growth and learning. These qualities contribute to healthier and more satisfying relationships.

### 2.3.3. Critical thinking exercises your mind

Critical thinking is one of the most important intellectual skills to develop in today's world full of information and diverse perspectives. It is not without reason that critical thinking is said to exercise the mind. It does so by engaging and challenging cognitive abilities. This approach awakens thought processes enabling us to better understand problems, make rational decisions and formulate sound arguments.

Above all, critical thinking and critical insight develops people's **ability to analyse and evaluate arguments**. It allows one to detect weak arguments based on emotions, prejudices, or lack of information, enabling one to approach, among other things, debates and problem solving in a more logical way. The **skill of self-criticism** includes the **ability to evaluate and critically analyse our own beliefs, mistakes, and inadequacies**. By focusing on our weaknesses, we can improve our skills, expand our knowledge, and grow as individuals. By looking at ourselves critically, we avoid self-promotion and an uncritical approach to our own actions, which would lead to stagnation and loss of perspective. Critical thinking trains our minds, helps us to understand more complex problems and enriches us as individuals. In today's fast-paced and informative world, it is a skill that is extremely valuable and necessary for success and fulfilment in various spheres of life.

Here are some ways in which critical thinking exercises can benefit and strengthen your mind:

1. **Analytical thinking.** Critical thinking exercises require you to analyse information, break it down into its components, and evaluate its relevance and credibility. This process enhances your analytical thinking skills, allowing you to approach problems and situations with a more logical and systematic mindset.
2. **Dealing with problems.** Critical thinking exercises often involve solving complex problems or puzzles. Engaging in these exercises stimulates your mind to identify patterns, consider various solutions, and evaluate their potential outcomes. Regular practice improves your problem-solving abilities and enhances your capacity to approach real-life challenges more effectively.
3. **Creativity and innovation.** Critical thinking exercises can spark creativity by encouraging you to think outside the box and generate novel ideas. These exercises often require you to make connections between seemingly unrelated concepts, explore alternative perspectives, and devise innovative solutions. By engaging in creative thinking, you expand your mental flexibility and foster a more imaginative mindset.



4. **Making good decisions.** Critical thinking exercises involve making decisions based on evidence, reasoning, and careful evaluation. They require you to weigh different factors, consider potential consequences, and choose the best course of action. Regular practice strengthens your decision-making skills, enabling you to make informed and well-reasoned choices in various aspects of life.
5. **Logical reasoning.** Critical thinking exercises train your mind in logical reasoning. They require you to identify logical fallacies, evaluate arguments, and draw valid conclusions. By engaging in logical reasoning exercises, you enhance your ability to detect flaws in reasoning and construct sound and coherent arguments.
6. **Reflection and self-awareness.** Critical thinking exercises often involve reflection and self-assessment. They prompt you to examine your own beliefs, biases, and assumptions, and to question their validity. This process cultivates self-awareness, allowing you to better understand your own thoughts and perspectives, as well as recognize potential cognitive biases that might influence your thinking.
7. **Mental agility and flexibility.** Regularly engaging in critical thinking exercises challenges your mind and promotes mental agility. It pushes you to adapt to new information, consider alternative viewpoints, and adjust your thinking accordingly. This flexibility strengthens your cognitive abilities and enables you to approach complex situations with an open and adaptable mindset.
8. **Lifelong learning.** Critical thinking exercises foster a mindset of continuous learning and intellectual curiosity. They encourage you to seek out new knowledge, explore different perspectives, and engage in intellectual challenges. This commitment to lifelong learning keeps your mind active and continually sharpens your critical thinking skills.



Image 4. Source: [Freepik](#)



In summary, critical thinking exercises workout your mind by enhancing analytical thinking, problem-solving abilities, creativity, decision-making skills, logical reasoning, self-awareness, mental agility, and fostering a commitment to lifelong learning. By regularly engaging in these exercises, you can strengthen your cognitive abilities and develop a more adept and agile mind.

#### 2.3.4. Critical thinking helps to make conscious choices and decisions

As was mentioned at the very beginning of this module, critical thinking is the ability to analyse information, understand the context and form your own informed conclusions. Using critical thinking correctly allows you to make informed choices, considering both the positive and negative aspects of a situation, decision, or problem. Critical thinking is a skill that can help you make better decisions. It means analysing, evaluating, and understanding information before taking any action or decision.

When you use critical thinking, you try to approach a subject objectively and with an open mind. This means analysing information from a variety of sources, exploring different viewpoints, and considering both the pros and cons of a situation. In this way, you can avoid one-sided thinking and consider a wide range of factors.

Critical thinking to make informed choices involves applying analytical and evaluative thinking skills to decision-making processes. It involves examining information, considering different perspectives, and making considered and informed choices based on sound reasoning and evidence. This process consists of several steps. These are:

1. Information gathering
2. Analysis of assumptions and biases
3. Evaluating evidence
4. Consideration of consequences
5. Identification and evaluation of alternatives
6. Weighing risks and benefits
7. Reflection on values and ethics
8. Iterative decision-making process

Critical thinking recognizes that decision-making is often an **iterative** process. It involves revisiting and reevaluating choices as new information becomes available or circumstances change. This flexible and adaptive approach allows for continuous improvement and adjustment of decisions based on new insights and feedback.

To make critical thinking an effective process when it comes to making informed decisions, it is useful to follow some of the following tips. They will be helpful in any context where you have to make some important decision. These include:

**Questioning the information you receive.** Always challenge the information you receive. Inquire about its source, credibility, and purpose. Is there supporting evidence and factual basis? Are there any hidden motives or biases?



**Exploring different perspectives.** Make an effort to examine the situation from various viewpoints. Understanding different perspectives will provide you with a more comprehensive understanding of the matter and enable you to make more balanced decisions.

**Evaluating the evidence.** Maintain a sceptical stance toward the evidence and arguments presented. Verify that they are well substantiated and grounded in reliable research or sources. Do not solely rely on emotions or personal beliefs.

**Developing the ability to identify manipulation.** Stay vigilant against different manipulation techniques, such as emotional appeals, oversimplified reasoning, persuasive language, or misleading statistics. Learn to recognize these techniques and fact-check information to avoid falling into manipulation traps.

**Being open to change.** Do not hesitate to alter your viewpoint if new information or evidence arises. Critical thinking requires adaptability and a willingness to revise our perspectives based on new facts.

**Acquiring reliable information.** Strive to utilize a variety of reliable and reputable information sources. Avoid relying solely on a single source or succumbing to misinformation.

**Practicing logical thinking.** Enhance your logical thinking skills by solving problems, analysing arguments, and employing deductive reasoning. Make decisions based on logical and rational justifications.

In summary, by applying critical thinking skills to your decision-making process, you can make more thoughtful and informed choices that are in line with your values and goals. By incorporating critical thinking into your decision-making processes, you will make objective and effective decisions in various aspects of your life. Critical thinking positively influences decision-making by promoting rational and logical reasoning, analysing a problem in depth, evaluating options, identifying, and assessing assumptions, considering consequences, fostering creativity and innovation, instilling confidence and responsibility, and promoting a mindset of continuous improvement.

Critical thinking provides a systematic and logical framework for decision-making. It enhances objectivity, problem-solving and evidence evaluation skills, and helps to mitigate biases, ultimately leading to more informed and effective decision-making processes.

### 2.3.5. Critical thinking helps to solve problems

Critical thinking is an iterative process that requires practice and continuous improvement. Critical thinking is a valuable skill that can help you approach problems in a systematic and logical way.

Using critical thinking to solve problems involves applying logical and analytical thinking skills to identify, analyse and deal with challenges or obstacles. It involves a systematic



approach to problem solving that emphasises evaluating evidence, considering different perspectives, and generating innovative solutions.

Problem solving is a process. Therefore, a number of steps need to be taken to find the right solution and each step needs to be carried out properly to make the whole process effective. Below is what an example of a problem-solving process using critical thinking might look like:

1. Critical thinking begins with identifying and defining the problem accurately. This requires careful observation, gathering information, and understanding the context and underlying factors contributing to the problem. Critical thinkers ask probing questions to gain a comprehensive understanding of the issue at hand.
2. This type of approach involves breaking down the problem into its component parts and analysing them systematically. This stage involves examining the causes and effects of the problem, identifying patterns, and assessing the relevance and reliability of the information gathered. Critical thinkers evaluate evidence and consider multiple perspectives to gain a holistic understanding of a problem.
3. Critical thinking encourages the generation of multiple alternative solutions or approaches to solving a problem. This process involves creative thinking, exploring different possibilities and considering unconventional or innovative ideas. Critical thinkers challenge assumptions and constraints to broaden the range of alternative solutions.
4. Evaluating the feasibility, effectiveness and potential consequences of each alternative is extremely important. Critical thinkers weigh the advantages and disadvantages of each option, consider available resources and constraints, and make informed judgements based on logical reasoning. They select the most viable solutions that are consistent with the desired outcomes.
5. Critical thinking involves developing an action plan to implement the chosen solution. This may include breaking down the solution into smaller steps, assigning responsibilities and setting timelines. Critical thinkers also anticipate potential challenges and develop contingency plans. Implementing the solution allows them to test its effectiveness and make any necessary adjustments.
6. One phase of the problem-solving process using critical thinking involves reflecting on the problem-solving process and evaluating its results. Critical thinkers evaluate the strengths and weaknesses of their approach, identifying lessons learned and areas for improvement. This reflective practice contributes to continuous learning and enhances problem-solving skills for future challenges.
7. As already mentioned in the context of making choices and decisions, critical thinking recognises that problem solving is also often an iterative process. If the initial solution does not produce the desired results, critical thinkers reassess the problem, gather additional information and change their approach. They are prepared to adapt and modify their strategies based on new insights or changing circumstances.
8. Critical thinking can be enhanced through collaboration and effective communication. Engaging with different perspectives and seeking input from



others can enrich problem-solving efforts. Critical thinkers actively listen, engage in constructive dialogue, and clearly articulate their reasoning and solutions to facilitate understanding and collaboration.

It is worth bearing in mind that every problem is different, but the solution presented is as universal as possible. In a nutshell, using critical thinking to solve problems involves identifying the problem, analysing, generating alternative solutions, evaluating, and selecting solutions, implementing, and testing solutions, reflecting and learning from the process, and engaging in collaborative communication. Using critical thinking skills, individuals can approach problems in a systematic and logical manner, leading to effective problem solving and innovative solutions.



Image 5. Source: [Freepik](#)

### 2.3.6. Critical thinking and teamwork

Teamwork and critical thinking are closely linked and mutually beneficial. Both are extremely important for effective teamwork and high performance. Furthermore, teamwork can have an impact on the development of critical thinking.

Teamwork involves cooperation and interaction between team members to achieve a common goal. In this context, critical thinking refers to the ability to analyse, evaluate and distinguish, and then formulate and make rational decisions based on these analyses.

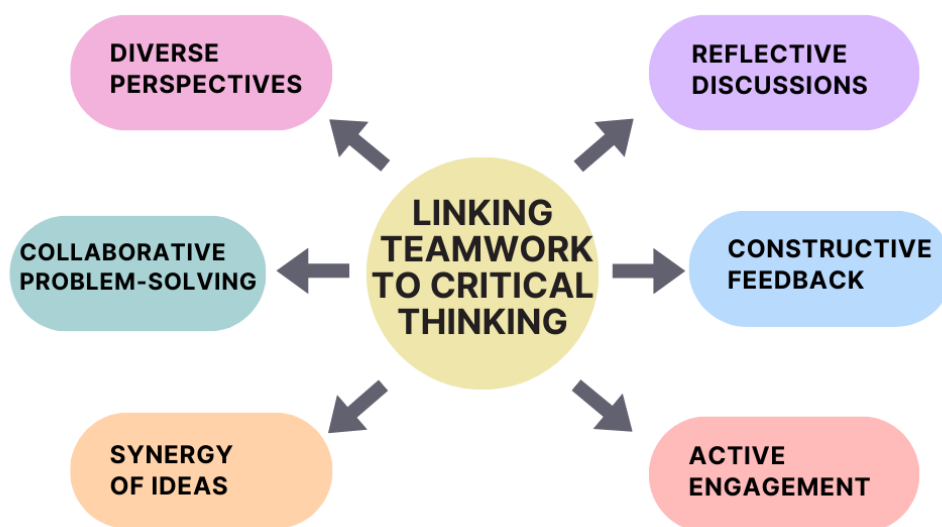


Image 6: Created by ADES

Teamwork contributes to the improvement of critical thinking in various ways:

- **Diversity of perspectives.** When individuals from different backgrounds, experiences, and areas of expertise come together in a team, their unique viewpoints foster a more comprehensive analysis of problems. By considering diverse perspectives, team members challenge assumptions, evaluate evidence, and explore alternative solutions, thus stimulating critical thinking.
- **Collaborative problem-solving.** Teamwork often involves working together to solve complex problems. Through active engagement, team members can exchange ideas, brainstorm solutions, and engage in healthy debates. This collaborative process nurtures critical thinking skills as individuals analyse and evaluate different options, anticipate challenges, and consider the consequences of their decisions.
- **Synergy of ideas.** Collaborative teamwork allows team members to build upon each other's ideas, leading to innovative and well-rounded solutions. By synthesizing different perspectives and leveraging individual strengths, cognitive biases, limitations, and blind spots that hinder critical thinking can be overcome.
- **Reflective discussions.** Regular discussions and reflections within a team provide opportunities for critical thinking to thrive. Team members can examine their approach, identify strengths and weaknesses, and consider alternative strategies for future endeavours. Through these reflective sessions, critical thinking skills are



honed, enabling individuals to refine their problem-solving abilities and decision-making processes.

- **Constructive feedback.** Teamwork provides a supportive environment for receiving feedback from peers. Evaluating each other's ideas or work helps refine critical thinking skills. Constructive feedback encourages individuals to question assumptions, challenge reasoning, and improve problem-solving approaches. Incorporating feedback into the thinking process allows individuals to enhance their critical thinking abilities and develop a stronger analytical mindset.
- **Active engagement.** Active engagement in teamwork enhances critical thinking by promoting collaboration, analysis, and evaluation of ideas. Through active participation, team members are encouraged to voice their opinions, challenge assumptions, and contribute to discussions, which stimulates critical thinking. Engaging in meaningful exchanges with team members allows individuals to evaluate different perspectives, consider diverse solutions, and weigh the merits of various options, fostering a more comprehensive and thoughtful approach to problem-solving. Ultimately, active engagement in teamwork cultivates an environment that encourages critical thinking and enables individuals to refine their analytical skills.

Teamwork encourages active engagement, diverse perspectives, collaborative problem solving and constructive feedback, all of which contribute to improving critical thinking skills. Working together, individuals can challenge their own assumptions, consider different viewpoints, and develop more robust and effective approaches to problem solving.

### 2.3.7. Critical thinking helps with financial management

Critical thinking in the context of financial management refers to the ability to analyse, evaluate and interpret financial information and make sound decisions based on logical reasoning and evidence. It involves examining financial data, considering various factors and assessing potential risks and opportunities before making informed judgements. Critical thinking is an important part of business and finance; without critical thinking, one may not be able to clearly articulate and demonstrate the skills and solutions needed by a company or client. Critical thinking plays a significant role in financial management by providing people with the skills necessary to analyse complex financial situations, make informed decisions, and mitigate risks.

What does effective financial management using critical thinking and viewing consist of? Some of the most important steps in this process are:

- Analysing financial data
- Evaluating financial decisions
- Overcoming challenges and problems
- Considering alternative perspectives
- Continual learning and adaptability



In financial management, critical thinkers engage in careful analysis of financial statements, reports, and relevant data to detect trends, patterns, and discrepancies. They utilize financial ratios, benchmarks, and industry comparisons to gain insights into an organisation's financial health, paying meticulous attention to details.

When making financial decisions, critical thinkers assess the potential consequences and outcomes. They evaluate short-term and long-term impacts, conduct cost-benefit analyses, and consider the associated risks and rewards of various options. Through critical evaluation of alternative courses of action, they determine the most favourable outcome for the organization.

Addressing complex problems and challenges in financial management, critical thinkers break them down into manageable components. They gather pertinent data, identify potential solutions, evaluate their feasibility, and select effective strategies to resolve financial issues.

Critical thinkers in financial management value diverse viewpoints and perspectives. They foster open discussions and actively seek input from stakeholders to obtain a comprehensive understanding of financial matters. By considering multiple perspectives, they uncover potential risks, identify hidden opportunities, and make well-informed decisions.

Recognizing the dynamic nature of financial markets and regulations, critical thinkers continuously seek new knowledge and stay updated on industry trends, emerging technologies, and evolving financial practices. They adapt their thinking and decision-making processes to incorporate new information and effectively respond to changing circumstances.

In summary, critical thinking in financial management enables analysis of financial data, informed decision-making, risk management and effective communication. It enables financial managers (but not only) to navigate complex financial landscapes and contributes to financial success in their lives and their organisations.

### 2.3.8. Critical thinking helps to communicate more effectively

Critical thinking plays an important role in effective communication. This helps individuals analyse information, evaluate arguments, and make rational decisions. Applying critical thinking to communication improves clarity, consistency, and reliability.

Critical thinking helps improve communication. And good communication influences critical thinking.

Key aspects of critical thinking that can contribute to more effective communication include:

- Questioning assumptions
- Evaluating evidence
- Recognising biases



- Exploring alternative viewpoints
- Reflecting on assumptions and conclusions

Critical thinking involves questioning assumptions. By challenging assumptions, one can uncover biases, identify logical fallacies, and gain a deeper understanding of the subject. This facilitates more accurate communication and helps avoid misleading statements.

Critical thinking requires evaluating the quality and validity of evidence supporting a claim or argument. When communicating, it is important to present reliable and credible evidence to support one's points. Critically assessing evidence helps avoid baseless claims and increases the persuasiveness of the message.

It also involves being aware of one's own biases and recognizing them in others. By acknowledging biases, one can strive for objectivity and honesty in communication. This aids in presenting balanced perspectives, fostering constructive dialogue, and avoiding unnecessary conflicts.

It encourages individuals to consider multiple perspectives and seek diverse opinions. When communicating, it is important to listen to others and understand their viewpoints. By considering alternative perspectives, one can broaden their understanding, engage in meaningful discussions, and build stronger arguments.

Critical thinking also involves reflecting on one's own assumptions and checking the validity of conclusions. Taking time for reflection during communication allows for refining the message, clarifying any ambiguities, and ensuring coherence. It also helps in recognizing potential biases or logical errors that may affect the effectiveness of communication.

Critical thinking and viewing improves communication by promoting intellectual rigor, logical reasoning, and the ability to evaluate and convey information effectively. By applying critical thinking skills, individuals can become more articulate, persuasive, and open-minded communicators.

Critical thinking emphasises clear and precise communication. By organising your thoughts, logically constructing arguments, and using appropriate language, you can communicate your message effectively. Clarity in communication reduces misunderstandings and increases the impact of your ideas. Critical thinking and strong communication skills improve problem-solving ability. These skills allow you to focus on the goal and think rationally.

#### **2.4. CHANGING ONE'S MIND AFTER RECEIVING NEW EVIDENCE USING A CRITICAL VIEW**

In the age of easily accessible and rapidly disseminated information, the ability to be critical of it is becoming increasingly important. As new evidence is presented, it is necessary to adjust our opinion and approach to take the new information into account. It is not possible to always be biased, as this distorts the correct perception of many



things. Critical thinking is a process that allows us to analyse and evaluate information objectively and rationally. Hence, it is an essential skill needed to analyse what we see (e.g., online), to draw rational conclusions and to be cautious about making judgements if the evidence in a given context is not sufficient.

Critical thinking requires flexibility and a willingness to change our beliefs in the light of new evidence. There are several steps we can take to adjust our critical thinking:

- **Familiarisation with new evidence (reading, viewing, etc.).** This involves carefully examining the new evidence and assessing its impact on your current beliefs. Seek to understand the context, credibility and implications of the information presented.
- **Analysis of the particular evidence.** You should place great emphasis on assessing the credibility and strength of the evidence. Determine whether they are well supported by credible sources and whether they contradict other established facts or evidence.
- **Re-evaluation of beliefs.** Based on the new evidence, review your existing beliefs, and consider whether they need to be adjusted. Consider whether the new evidence is sufficiently compelling to warrant a change of perspective. Explore alternative explanations that may exist.
- **Careful and thorough consideration.** It is extremely important to take into account all available information and consider different points of view. Be aware of potential flaws or limitations in the new evidence. Remember that critical thinking requires consideration of alternative explanations and potential fallacies.
- **Updating your opinion based on all available evidence and information:** Finally, if the new evidence is convincing, credible and the analysis leads to the conclusion that a change is warranted, be prepared to change your point of view. Do not hesitate to update your beliefs based on the new evidence and information available.

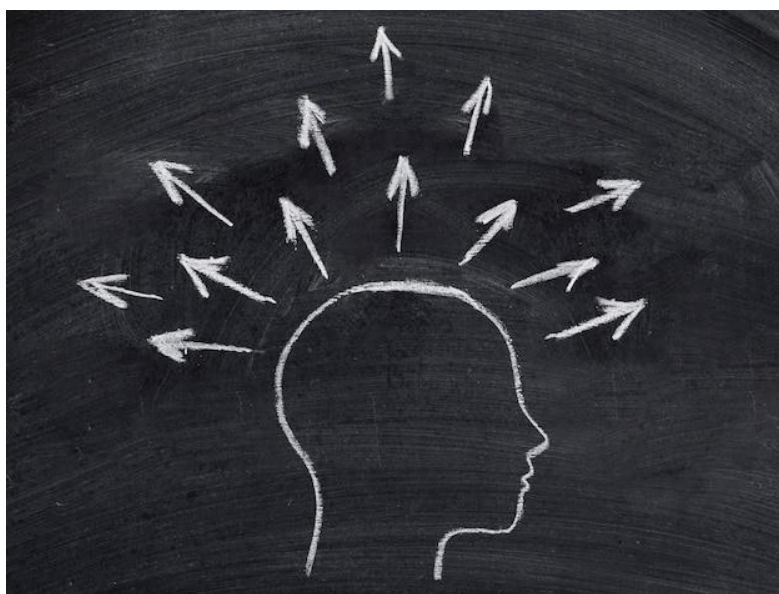


Image 7. Source: [Freepik](#)



Changing one's mind when new evidence is presented is a fundamental aspect of critical thinking. Critical thinkers understand that their beliefs and opinions should be based on evidence, reason, and logical analysis, rather than stubbornly clinging to preconceived notions.

When new evidence emerges, critical thinkers are open to reassessing their perspectives. They carefully evaluate the credibility, reliability, and relevance of the new information. They consider whether the evidence challenges or supports their existing beliefs and opinions.

Critical thinkers prioritize the pursuit of truth and accuracy over personal biases or emotional attachments to their previous views. They are willing to admit when they were mistaken or lacked complete information, as they value intellectual integrity and growth.

Changing one's mind based on new evidence is not seen as a weakness but as a strength in critical thinking. It demonstrates intellectual flexibility, a commitment to evidence-based reasoning, and a willingness to refine one's understanding of a subject. By being open to changing their minds, critical thinkers continuously refine their knowledge, make more informed decisions, and foster intellectual growth.

Among the positive aspects of changing one's mind based on new evidence, we can include **intellectual development**, greater **rationality and objectivity**, **adaptability** and **better decision making**.

Despite these benefits, there may be potential negatives associated with changing one's mind too often or changing one's mind without sufficient evidence. These negative aspects mainly include **inconsistency**, **lack of due conviction**, so-called **confirmation bias** (the tendency to seek out and prefer information that supports our preexisting beliefs<sup>4</sup>) and **social pressure**.

To summarise, changing one's mind when presented with new evidence is an overall positive aspect of critical thinking. It promotes intellectual development, rationality and adaptability. However, it is important to approach new evidence with a balanced attitude, to evaluate it critically and to avoid succumbing to confirmation bias or excessive rejection without sufficient justification.

Critical thinking skills develop over time, but with a little effort and patience you will be able to apply objective and analytical thought processes to all situations. Critical thinking is one of many soft skills that effective team members, managers and employees possess. It comes in handy on a daily basis, and allows you to look a little differently from others at all sorts of aspects that you are able to subject to your own analysis.

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<sup>4</sup>Source: <https://www.scribbr.com/research-bias/confirmation-bias/>



### 3. FURTHER READING

Here we present additional resources that you can use to deepen your knowledge related to the module:

- 11 Benefits of Critical Thinking That Rapidly Improve Your Life – <https://www.magneticmemorymethod.com/benefits-of-critical-thinking/>
- Critical Thinking - Critical Thinking in Communication – <https://youtu.be/mnbYd3eexdQ>
- Critical thinking and adult education: A conceptual model for developing critical thinking in adult learners – [https://www.researchgate.net/publication/240528387\\_Critical\\_thinking\\_and\\_adult\\_education\\_A\\_conceptual\\_model\\_for\\_developing\\_critical\\_thinking\\_in\\_adult\\_learners](https://www.researchgate.net/publication/240528387_Critical_thinking_and_adult_education_A_conceptual_model_for_developing_critical_thinking_in_adult_learners)
- Critical Thinking Skills – <https://www.skillsyouneed.com/learn/critical-thinking.html>
- Critical Viewing – [https://www.researchgate.net/publication/306080494\\_Critical\\_Viewing](https://www.researchgate.net/publication/306080494_Critical_Viewing)
- Why Is Critical Thinking Important? A Survival Guide – <https://www.uopeople.edu/blog/why-is-critical-thinking-important/>
- Why should we learn critical thinking? – <https://youtu.be/Bo2Up1-rIIs>

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# MODULE 3: Critical thinking – how to improve your skills



## 1. AIM AND LEARNING OBJECTIVES

### 1.1. AIM OF THE MODULE

The aim of this module is to motivate you to upskill competencies and to increase your critical thinking skills in a way that enables you to understand and interpret received information.

The need for this personal development comes from an increasing growth of disinformation and spread of fake news intended to mislead the public. The circulation of false information negatively impacts the public opinion and therefore can pose as threat to society and democratic principles. While these types of narratives keep being diffused around several media, such as television, social media, and the internet (in general), it is important that people who use these platforms know how to identify if such information is true or not. This capacity involves understanding and thinking in a critically manner, questioning statements that are presented to us and having the skills to look for the right facts and to not share incorrect news.

To think critically is an especially relevant competency in today's context where we assist to a vast and fast paced evolution of information and communication technologies, where we can be daily exposed to these and other narratives. Therefore, it is the aim of this module to transmit useful strategies to capacitate yourself. The module provides learning contents and practical activities to an efficient comprehension.

### 1.2. LEARNING OBJECTIVES

By the end of the present module, your will:

- Identify your level of critical thinking.
- Acknowledge your needs for self-development.
- Recognize your abilities to question given statements.
- Interpret information in a critical manner.
- Access, gather and understand relevant strategies and techniques to upskill yourself and others.

## 2. SELF-ASSESSMENT EXERCISE – ARE YOU A CRITICAL THINKER?

Following-up on the last module, that provides a clear view on critical thinking concepts, here it is presented a short self-exercise that enables you to have a sense of your level on some competencies related to critical thinking. The exercise is an adaptation of a known



skills assessment test – the Watson-Glaser Critical Thinking Appraisal. This version<sup>5</sup> consists of a set of 5 logic questions with different types of response. Each question corresponds to a critical thinking related competency. The goal is for you to answer and reflect in the end about the skills you have just used in the process.<sup>1</sup>

### Question #1 | Inference

From the following passage, it was written a proposed interpretation. State your thoughts on the veracity of the interpretation based on what the passage claims.

Passage: 50 people have been interviewed for a job vacancy. During the meetings with the interviewers, voluntary work was the most discussed element because companies today find it of great importance to fill any position.

Proposed interpretation: The company hasn't found the right candidate because all of the interviewees have experience with voluntary work.

True

Probably True

Insufficient data

Probably False

False

### Question #2 | Recognition of Assumptions

The goal here is to verify if the referred proposed assumption can be presumed from the following statement.

Statement: The lack of certain groceries in the supermarket implies that they didn't arrive to the store.

Proposed assumption: Unpredictable circumstances can condition the supply of goods to retail stores.

Assumption made

Assumption not made

### Question #3 | Deduction

The objective of the exercise is to verify if the presented possible conclusion follows the following statement.

Statement: Most people that try to integrate the job market look for vacancies related to areas of their training. Nonetheless, it is important that people search also for areas of their interest.

Possible conclusion: Some people look for job vacancies within areas that interest them.

Conclusion follows

Conclusion does not follow

<sup>5</sup> Adapted from a sample WGCTA test from JobTestPrep.



#### Question #4 | Interpretation

From the following statement, verify if the possible conclusion that is also presented follows beyond reasonable doubt.

Statement: John is the most multilingual person of his city, talking 10 foreign languages including Romanian, Polish, Greek, Turkish, Spanish, Italian and Portuguese.

Possible conclusion: If John met a Spanish person, he would be able to have a conversation with him.

Conclusion follows

Conclusion does not follow

#### Question #5 | Evaluation of Arguments

Related to the following question, evaluate if the argument is strong or weak, having in mind that the argument must be considered true. Note that a strong argument is one defined as relevant and important.

Question: Should airlines give a discount on plane tickets bought last minute?

Argument: Yes. Since it can motivate people to buy a ticket, fill the plane and avoid more air pollution due to the aircraft functioning.

Strong argument

Weak argument

### 3. LEARNING CONTENT

The present chapter intends to provide you with a set of resources, materials, information, and theory context necessary to develop and improve your own critical thinking skills set.

As seen in previous modules and throughout this handbook, critical thinking is a tool of added value and majorly relevant for several situations of our daily life. Holding skills like problem-solving, analysis competences or creativity and having the know-how to use them and apply them when we consider to be important can impact the way we inform ourselves, our attitudes when participating in society and our lifelong learning journey.



### 3.1. CHARACTERISTICS OF CRITICAL THINKING SKILLS DEVELOPMENT

In this section, by introducing you to the topic of how you can improve your critical thinking skills, we intend to provide you with a view of mental tools that can help with the process.

These are what educational researchers define as dispositions. As mental, they contribute to enhance your thinking capabilities, setting your readiness and how open you are to start or develop your critical way of thinking<sup>2</sup>. In this way, note that it is important to have these inclinations for the critical thinking learning process, although you can also take your time to develop yourself on this topic.

There are two types of mental dispositions<sup>2</sup>:

#### Initiating dispositions

**Habits that causally contribute to the start of the thinking transition process**

#### Internal dispositions

**Habits that causally contribute to think critically, once you have started doing it**

Although, both of these disposition types can help with any phase of thinking critically, some authors identify the following elements as important to the process:

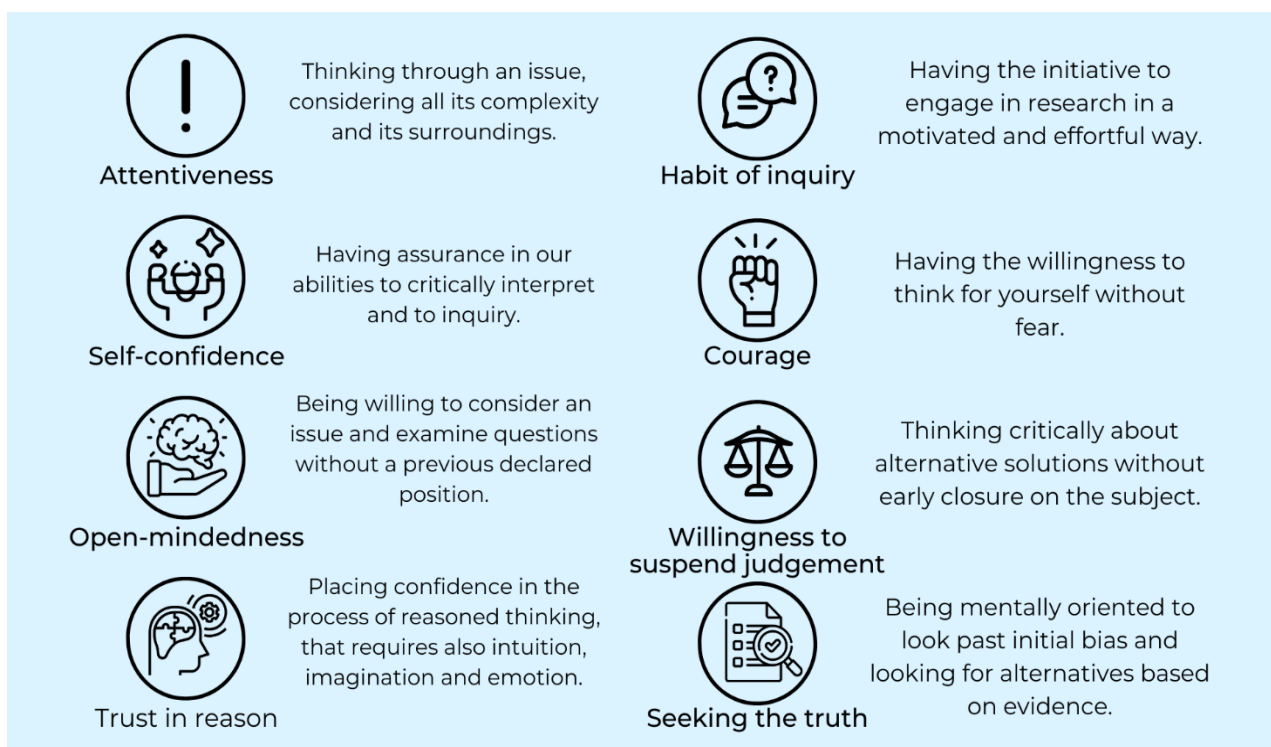


Image 1: Adapted and developed by E&D based on content from David Hitchcock (2018)

Critical Thinking is “the intellectually disciplined process of actively and skilfully conceptualizing, applying, analysing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action” – Robert Ennis, 2015<sup>4</sup>

Developing a mindset in preparation towards the process of critical thinking also involves understanding the differences between the type of thinking we aim to achieve and our own state of thinking process. Critical thinking skills involve, as it follows the logic of the MCRE E-Book, connecting the dots<sup>3</sup>:

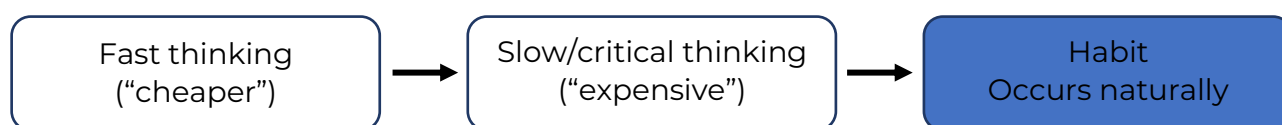
- with knowledge provided by experience: meaning at developing and adjusting our beliefs and points of view to the assimilation of real-life evidence based on what we experience.
- with abstract thought: putting the puzzle together around different scenarios and possibilities, where one meets the concrete reality of facts.

From the point of view of theory of how such skills can be improved, the present module focuses on characterizing this skills path as a hierarchy of learning, where one should learn a set of basic skills before advancing to more advance or higher skill formation. The



model proposed<sup>3</sup> assumes that this development is a process that can be incorporated and ultimately become part of our thinking routines without having to initiate the whole process when performing certain activities that require it, such as self-clarifying if a news piece is “fake news” or disinformation.

List states that **the improvement of skills, namely critical thinking skills, arises not from the lack of some resource or something, but from a desire to develop ourselves as a person and in the many contexts on our lives, such as society, work, school, and others.**



As a human tendency, the mind applies a “fast thinking” approach when facing information, observations, or experiences due to the fact that less time is spent on the thinking process, making it a more mentally “cheap” solution, regarding other ways of thinking, where one needs to dedicate more effort and time. The problem lies on the fact that when this too direct, not considerate, type of thinking is activated, systematic errors called **cognitive biases** occur within our decision-making process, which leads to misapplied and incorrect reasoning.<sup>5</sup>

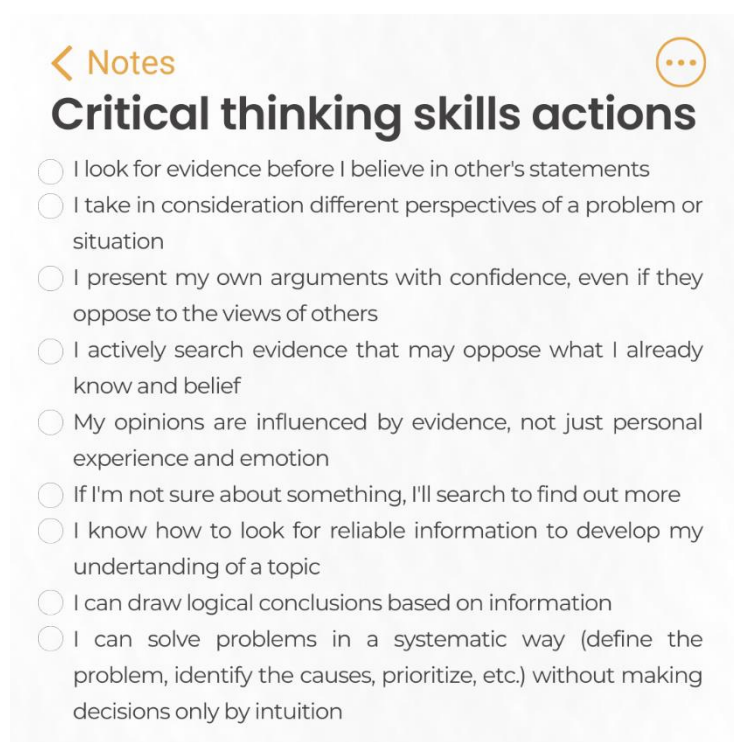
Therefore, although developing a critical thinking mindset can be a slower process, more “costly” in terms of time and effort applied, it is a solution to incorporate a questioning and critical perspective into our habits of thought, which ultimately will reduce the “costs” of thinking critically.

In this sense, we provide a starting point to establish what you can expect to learn at the end of the MCRE E-BOOK, regarding attitudes, behaviours, and skills proper of a critical thinking approach.

The following statements<sup>6,6</sup> reveal critical thinking skills. Although their purpose is to have a starting point to the skills development exploration topic, you can use it as a self-assessment exercise in order to understand your perspective on the described actions, as well as the frequency in which you use them, throughout the E-BOOK.

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<sup>6</sup> Adapted from The University of Manchester’s short version Critical Thinking Self-Assessment.

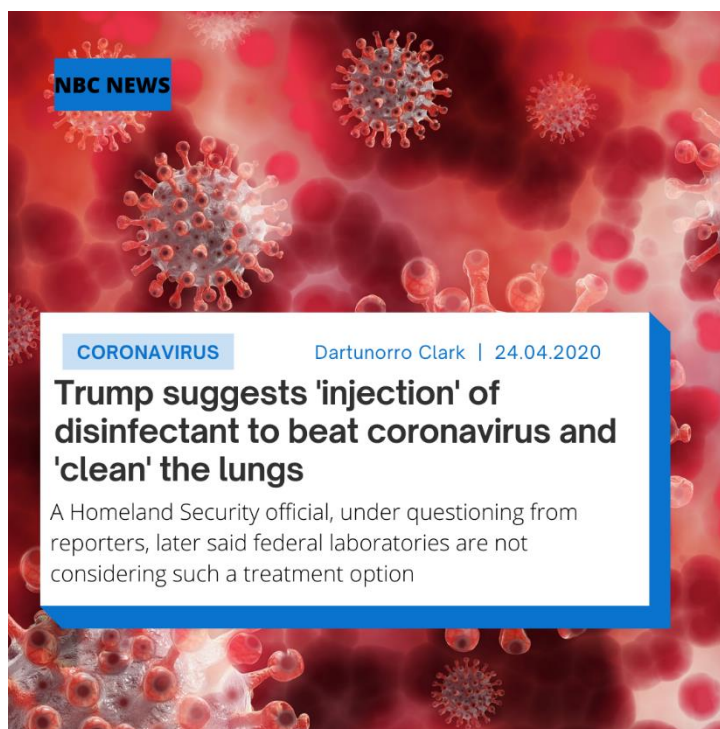


*Image 2: Adapted and developed by E&D based on content from The University of Manchester*

After reading and interpreting the provided statements, this module presents you with a news piece covering a statement from former U.S.A. President Donald Trump on the broadcaster NBC NEWS from 2020. The purpose is for you to interpret and deconstruct the piece (from title, subtitle and provided text body<sup>7</sup>) solely taking in consideration the statements provided under the Critical thinking skills actions image.

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<sup>7</sup> [News piece: Trump suggests 'injection' of disinfectant to beat coronavirus and 'clean' the lungs](#)



*Image 3: Developed by E&D based on the referred news piece*

From this exercise, some elements can be considered regarding the critical and questioning thinking process:

- Looking for evidence before believing in claims: consider the actual harms/hazards of the contact of chemical products with our organism. It is essential to search about the topic before believing in claims that can lead to dangerous actions.
- Taking in consideration solutions and different perspectives: search for proved means of protection against the disease and looking at what experts have stated about the situation.
- Drawing conclusions based on the information researched: with a throughout search for facts and evidence and a multiple source research, drawing clear conclusions about the veracity of the information.

At this point, we can assume that fast thinking leads to errors in the thinking process, caused by flaws that don't enable the mind to think considerably and critically about all the aspects or alternatives of a solution or a problem, therefore causing errors in our statements.

As mentioned throughout the module, learning to improve critical thinking skills is not a direct process with instant results, but rather incorporating useful and clear habits that can make us think differently about ideas and beliefs that we assume as true or even information that we are exposed to on a daily basis, as information and communication technologies develops. This learning process isn't exclusive when it comes to improve



critical thinking skills, as it can be developed in several ways according mostly to person of interest – the learner. Some authors provide explications that follow a hierarchy of the thinking ability, from which one can implement learning strategies. In this sense, skills are shown to be integrated in a hierarchical order, in which learning low order thinking skills is necessary to advance to higher ones, ultimately detaining a complete set of critical thinking abilities.

An important reference in this sense is the Bloom's Taxonomy<sup>7,8</sup>, as a reference for learning through clear educational objectives and categorized thinking according to the skills order.

## Bloom's Taxonomy

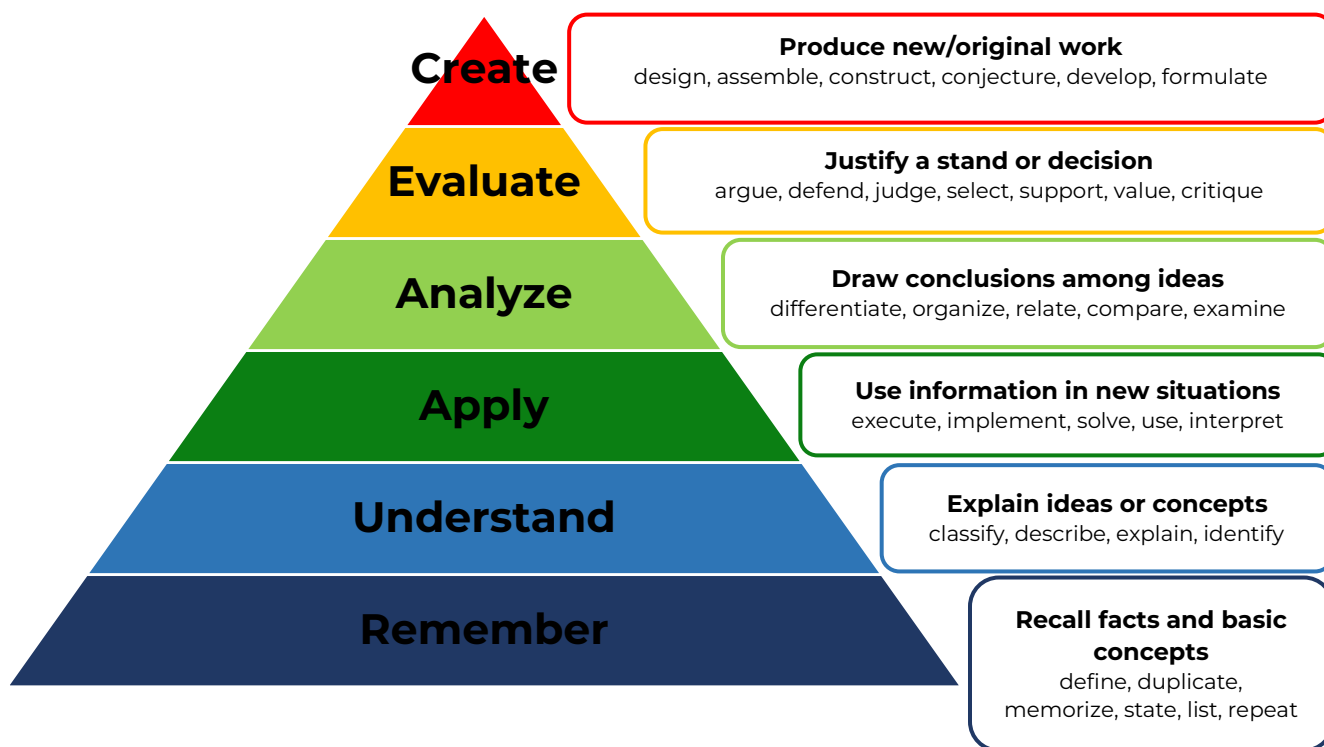


Image 4: Adapted and developed by E&D based on content from Vanderbilt University Center for Teaching

As a learner that wants to improve his/her critical thinking skills, the Bloom's Taxonomy is useful to define learning objectives and practise exercises according to the logical order so that the learner can make use of higher order skills having a supporting ability base. As you can see from the representation in Figure 3, for each skill, there are several verbs attached that correspond to actions that can be developed or performed in order to improve one's skill capacity. By using the verbs, it is possible to develop activities

<sup>8</sup> Adapted from the online resources from Vanderbilt University Center for Teaching.



focusing on a certain input (such as a news piece, a text, or a video), creating tasks for that purpose<sup>14</sup>.

As an example, we state that if one wants to analyse the fast spreading of fake news in recent years in Europe, the learner should be able to understand several elements of the topic, such as the means of propagation, the impact of social, political, or economic events, or even the state of awareness of the European population towards the subject.

For the educator, the taxonomy consists of a reference framework that helps towards the development of exercises, to assess learners on their thought level and to establish a mutual exchange of knowledge and awareness of critical thinking skills that both teacher and educator can understand and act on. As such, exercises involving a complete incorporation of the skills order (through the categorize actions) help to improve critical and questioning thinking skills<sup>7,8</sup>.

### Exercise example

For educators: Developing a task-based exercise can be useful to teach critical thinking, by using an integrated task approach in order to get students to reach a certain output. The designed tasks should follow the logic of steps to reach the target goal, according to the verbs given by Bloom's Taxonomy.

For students and educators: an example.

1. The causes and possible solutions of the spread of fake news in recent years.
  - List the causes of the recent fake news spread, based on what you already know;
  - Explain the causes of the phenomena;
  - Interpret and connect to other events in the European and global society;
  - Analyse what is available to act upon the problem;
  - Provide recommendations for possible solutions to act upon the fast spread of fake news.
2. The advantages and disadvantages of online distance learning.
  - Identify and place in categories the arguments in favour and against the implementation of online distance learning;
  - Compare the opinions and arguments;
  - Based on the provided arguments, defend your point of view;
  - Discuss with others your opinions and justify them.

In another hand, development of critical thinking is also important to be incorporated through the self-awareness of the learner about his/her thinking. As such, some authors<sup>9</sup> use the THINK model to assist students throughout their upskilling journey. By following these next steps, you can be aware of a number of skills and attitudes that are part of the critical thinking approach, when observing what surrounds us, interpreting what others say or even perceive information we are exposed to.



Image 5: Adapted and developed by E&D based on content from Rubenfeld and Scheffer (1999)

### 3.2. CRITICAL THINKING PRINCIPLES OF LEARNING

“People are better prepared to think for themselves if they first learn how to use the CT process through guided practice” – Wales, Nardi, & Stager, 1993<sup>9</sup>

The critical thinking transition is a powerful input that we can provide to our thinking habits and processes in order to facilitate the way we achieve logical conclusions based on facts and evidence and our own experience. Several studies have defended that the (further) development of critical thinking skills should be a part of education programmes, in order to prepare students from all ages to deal and face the new challenges of today's society, marked either by the fast development of information and communication technologies and thus by the amount of information we receive.

Critical thinking requires that learners view themselves as autonomous individuals so that the fostering of skills that can be incorporated as an independent habit. For this to



occur, special learning conditions<sup>10</sup> need to be provided to empower learners on their journey, such as:

- the dedication to the **open mind** approach to receive and develop knowledge;
- a **sense of autonomy** within an environment of respect and sensitivity towards other's points of view;
- induce students on a safe context where they feel free to take **initiative** and active questioning, engagement, and risk, by going beyond the simple receiving and transmitting of information;
- appropriate time, support, and guidance towards the **need for reflection** and dissection;
- the support of a teacher/ **facilitator** to help them on the process;
- creating a **stress-free, cooperative** learning environment, where ideas can be put experimented and put in place, as well as alternative hypotheses and proceeding on resolution and decision-making problems;
- foment **thought-provoking discussions** - the relation between dialogue and questioning/thinking, as the impact a question can have on a learner's thinking and learning is greatly positive;
- to focus on "the educational power of rational dialogue focused on questions of significance in an atmosphere of mutual support and cooperation" (Paul, 1984)<sup>10</sup>;
- emphasize learning through **higher cognitive questions** that lead to thinking process to obtain a response, instead of fact questions;
- having a facilitator/ educator that actively demonstrates **metacognitive behaviours** related to the self-awareness of knowledge and thinking, such as planning sharing, describing goals and objectives, showing the purpose of their actions;
- **having a critical spirit!** This is possible through:
  - ✓ adopting and making use of critical thinking skills in exploring mentally topics and situations;
  - ✓ thinking critically about our own process of thinking, in which way could it be improved;
  - ✓ being willing to take actions accordingly to the critical process.

The 12 principles of critical thinking for adult learners<sup>10</sup> are important references to support the improvement of critical thinking skills in learning contexts, by motivating both learner and educator to increase their knowledge and awareness on the topic.

1. To improve critical thinking, the learning environment must provide opportunities for adults to have in consideration several opposing points of view, which includes both their strengths and weaknesses.
2. Chances to reflect on, discuss and assess believes and actions of others and our owns foster critical thinking.
3. It is important to evaluate a wide spectrum of alternatives when making decisions.



4. The learning environment must encourage (adult) learners to raise ethical questions about one's actions and their consequences, themselves and of others.
5. Collaborative questioning among all the participants, especially in the relation learner-educator, should be actively present in the learning environment atmosphere.
6. The learning context must reflect analytical questions, where thinking is necessary.
7. Critical thinking is especially facilitated when learners are motivated and engage in exploratory dialogues with themselves and others, where they provide inputs, submit and explore ideas through reflective thought.
8. Opportunities to identify, examine and question assumptions play an important role in increasing critical thinking and spirit.
9. Reaching inferences, interpretations, and conclusions based on observation and information should be an element of learning context, where those opportunities should be given to learners.
10. The discussion of contradictory views, thoughts or actions foments the critical approach.
11. Learners should be given the opportunity to identify implications of actions.
12. Generalizations should be challenged in learning environments to promote a questioning perspective (Jones, 1989)<sup>10</sup>.

### 3.3. METHODS AND PRACTICES

In this section we provide you with strategies that can be used either by educators or by learners themselves that will foster the development of critical thinking skills. The authors<sup>10</sup> also suggest that these methods and tools can be used in different learning contexts, such as distance or blended learning, not only regular/traditional environments.

#### 3.3.1. Critical analysis

This strategy involves an individual learner, or small groups in case of multiple participants, questioning, analysing and elaborating critiques on the proposed material, such as news pieces from broadcasters and press, related to a specific topic.



Example:

### Subject

Investigating  
political issues  
on the society

### Activities

Read and critique  
articles from  
newspapers and  
reliable online  
sources regarding  
current social  
events

### Questions to raise

What are the demanding needs of  
our society and local  
communities?

Which parties can represent our  
society and its needs the best?

Which issues are currently being  
addressed? By whom?

How can we, as a collective, give  
importance to certain subjects?

### 3.3.2. Debate teams

Two opposing teams are built, and learners are assigned to the teams. One of the teams supports and defends a specific subject or a position towards it and the other opposes to it. Following a general introductory presentation from the session facilitator, team members present evidence and logical arguments in defence of the respective team's position. The strategy causes a greater impact if the supported position of a learner differs from his own.

Example:

### Subject

Social media as  
a source of  
information

### Defending position

High capacity of  
sharing that leads to  
greater access.

Collaborative and  
creative approaches.

### Opposing position

Higher risk for  
disinformation and  
spread of fake news.

Less use of traditional  
media to inform.

### 3.3.3. Dramatization

Strategy of dialogue and action dynamics to support the interpretation and analysis of situations. It depends on a holistic and developed in detail plot. The facilitator shows a section of a video, relevant television show episode or movie that addresses the specific topic defined for the exercise. After the visualization of the short segment, the remaining script is thought, written and act out by small groups of learners, around the created alternative endings.



#### 3.3.4. Action Maze

Learners are divided into groups, involving two/three participants, where each group is given a specific difficult situation (or elaborates its own) and learners need to decide what to do next based on the information. Often, they are given a few optional decisions, but for a more efficient CT development process, learners should create their own action options while also identifying the resulting consequences for each alternative. Each set of consequences is written on a board (or other) and the action leading to them is written on an adhesive and put on top, hiding the writings on the board. The facilitator can provide as many connected situations as needed. When completed, the teams complete and follow the maze elaborated from another team. They identify alternative actions and consequences and compare it to what was defined.

#### 3.3.5. Critical Incident

This strategy involves the presentation by a facilitator of a highly important part of a supposed critical situation or issue to the learners, who must solve it. The facilitator, holding the totality of the information, only shares it according to the direct questions raised by the learners, who do not have the full content. While the solutions being shared, the facilitator refers important points and comments the responses.

#### 3.3.6. Socratic Questioning

This strategy is an important method and a reference in critical thinking skills development, as it conducts to the type of thinking that requires actual reasoning about situations. It requires asking adequate questions, instead of ones that bring closure to the learner's thinking by providing a yes/no answer or by repeating retained information. According to Bloom's Taxonomy, these evidence lower thinking skills and don't require a higher thinking capacity. Socratic questions, named after Socrates, provide the possibility of interchanging perspective and ideas, give new meanings to content, and exploring wider applications.

Example:

##### **Logic of the dynamic**

- In case of lockdown imposed by unpredictable public health events, how could we assure the maintenance of teaching activities?
- One possibility is resorting to distance learning.
- That's one approach to the situation, what would be the impact on the student's learning?

#### 3.3.7. Creative Visualization

This method allows the learner to imagine himself placed in a future situation they might find themselves at some point. The facilitator asks questions to help them to create this



mental image and accompanying emotions, noting that the learners are in a relaxed and comfortable position with closed eyes.

Example:

### Possible situation

Being the administrator or manager of a news channel

### Questions to ask

- How do you spend a normal day? What are your activities?
- How do you motivate in the search of veracity in journalism?
- How do you match the needs of your organization and those of the colleagues you want to hire?

### 3.3.8. Journal Writing

The method involves having a journal or diary where learners are asked to write between CT development skills sessions about the follow-up and reflection of personal and related actions and behaviours. In this sense, journal writing could improve learner's sense of awareness, among others, by the opportunity for them to properly reflect on specific topics and learner's approaches towards them.

## 3.4. KEY TAKEAWAYS - INCORPORATING EVERYDAY HABITS

As critical thinking skills are important capabilities relevant in several dimensions of our everyday life, such as job purposes or participating in society of knowledge and information, it provides many benefits that play an important role to these dimensions. In this section, we provide three principles or tips that when incorporated, act as important habits to improve oneself as an effective thinker. In this sense, these given practices evolve around a questioning attitude towards available information, which enables a thinking process adapted to logic and reasoning, so that it can be diversified and open minded.<sup>12,14</sup>

### o **Expand your skill set!**

Learning about yourself in what concerns your strengths and weaknesses in terms of skills, capabilities, dispositions, and knowledge can give you a perception of which tools you can develop and get interested in so that you can perform more efficiently in your everyday life. Also, by learning about biases and your own perspectives and biases/prejudices you can gain a perception of other points of view and interpretations of other people that may contradict yours. Having them in consideration will help you develop and open your mind to new ways of thinking, providing you different solutions. Reading information resources such as books, papers, or articles about the specific skills



you may want to improve (and reading about critical thinking itself) is of great relevance and importance as well.<sup>12,14</sup>

- **Take the initiative to solve problems!**

When facing a difficult situation or a problem, first of all, taking time to ponder and think about the issue is highly relevant. Assuming that time can be spent on deliberating how you want to provide a solution or when facing a potential for a possible problem to arise, it is important to reflect on some issues such as what you know about it; the relevance of the timing and content of the information; considering other perspectives and interpretations of it and potential solutions. This process of detailed problem solving requires you to analyse data and from there put in practice other skills such as creative thinking, designing and planning, as well as undertake strategies like brainstorming and researching to learn. With trusted resources and a sustained opinion, taking the initiative through reason to achieve a solution can create good habits and incorporate the critical thought process.<sup>14,15</sup>

- **Exercise your brain!**

Critical thinking can be improved by word games, puzzles, and other entertaining activities as these are mental exercises that activate parts of your brain that direct attention and problem-solving skills. Besides these being activities characterized by low-stress dynamics that make you avoid others that may cause you anxiety or frustration, factors such as concentration, cognitive flexibility, and using numbers and letters in several ways exercise your mental capability and control. Examples of these activities include logic puzzles, riddles, chess, solitaire, and crosswords.<sup>14,16</sup>



### 3. FURTHER READING

In this section, we provide extra resources you can use to deepen the knowledge related to the module:

- Relation between writing and thinking – [Jordan Peterson - The Best Way To Learn Critical Thinking](#)
- Multiple discipline education programs and the perception of critical thinking by its students – [Teun J. Dekker - Teaching critical thinking through engagement with multiplicity](#)

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# MODULE 4: How to analyse the information we receive



## 1. AIM AND LEARNING OBJECTIVES

### 1.1. AIM OF THE MODULE

The objective of this module is to bring the user in to contact with ways that enables him to analyse the information received in order to they can be more resilient to fake news and disinformation.

People from all around the world can access and add to the useful information on the Internet. The information presented may not always be reliable or accurate because anyone could have authored it, despite the fact that we have free access to a wide variety of sources. You can come across resources that seem appropriate while looking for sources to utilize in your assessments. However, you should never believe anything you read online or anywhere.

Before using a source in an evaluation, you should always critically review it to make sure it is reliable and accurate in order to make sure your arguments are supported by reliable data.

### 1.2. LEARNING OBJECTIVES

By the end of this module the learner will be able to:

- Identify reliable resources
- Filter the information
- Evaluate sources

## 2. LEARNING CONTENT

### 2.1. INTERNET DOMAINS

This section provides a brief overview on different types of sites that help the user to identify the owner of the website.

On the Internet, each website address or URL has a domain as part of the address that identifies the owner of the website. The domain can be a quick way to judge the quality of a website before visiting it. Generally, .edu, .gov, and .org are more likely to have higher quality information than .com domains. But before we start, what is a Domain Name?



### 2.1.1. What is a Domain Name?

Firstly, a domain name is an internet resource name. It locates an organization or other entity on the Internet. In general, a [domain name](#) is an address via which internet users can access your website.

### 2.1.2. How to register your domain?

When building a website, choosing, and registering a domain name is usually the first step. The process of registering a domain name is described below.

1. **Find a Domain Name Registrar:** Domain name registrars, such as GoDaddy, Bluehost, and Domain.com, sell and manage domain names.
2. **Search for a Domain Name:** Here, you can use your domain name registrar to search for an available domain name. Make sure to incorporate important keywords when appropriate.
3. **Choose a Domain Name Suffix:** After you've chosen a domain name, the next step is to choose a suffix. The most popular is .com, but other common ones include .net and .org.
4. **Purchase a Domain Name:** Once you've chosen your domain name and suffix, you need to purchase it through the domain registrar. What usually happens is you pay for the domain for a year and then consistently pay to renew it.
5. **Include Domain ID protection:** When registering a domain name, you must include information like name, phone number, physical address, and email address, which will become public once your domain name has been registered. To protect yourself, you can purchase domain privacy, which will shield your information from spammers or identity thieves.

### 2.1.3. What types of domain name and endings are there?

Domains are categorized into three types of top-level domains (TLDs). This includes **generic top-level domains (gTLDs), new top-level (nTLDs) domains, and country code top-level domain (ccTLD) domains** where generic domains define registered hosts according to their generic behaviour, country domains use two characters country abbreviation, and new domains making it more likely to align your domain with your company name.

Below are the main categories of top-level domain everyone should be aware of:

- **gTLDs (Generic Top-Level Domains)** – These are the most common endings. They are called generic for historical reasons. Historically, the group of generic top-level domains included domains, created in the early development of the domain name system, that are now sponsored by designated agencies or organizations and are restricted to specific types of registrants.

ORIGINAL TOP-LEVEL DOMAIN	ORIGINAL MEANING OF THE DOMAIN ENDING
<b>.com</b>	It's the short form of <b>"commercial"</b> and is commonly used by businesses, emails, and websites
<b>.net</b>	Is the shorthand for <b>network</b> and is used from network organizations and sites that promote their own opinions or service
<b>.org</b>	Shorthand for <b>organization</b> , mainly for those that are non-profit. However, today this domain is also used by schools, communities, and for-profit businesses
<b>.gov</b>	Shorthand for <b>government</b> . It is used from agencies, programs, cities, states, towns that are associated with government
<b>.edu</b>	It is the short for the word <b>"education"</b> and it indicates that the site was made from education institutions (schools, universities, and libraries)
<b>.mil</b>	This specific domain is the shorthand for the word <b>military</b> . These sites can provide information about the military of its Stat
<b>.info</b>	The name is derived from <b>information</b>
<b>.biz</b>	It is intended for registration of domains to be used by <u>businesses</u> . The name is a phonetic spelling of the first syllable of business

*Table of Generic-Top Domains*

- **nTLD (New Top-Level Domains)** – These are more customizable and let your domain name be more relevant to your website. Some examples include voyage, .ninja, and .app. Is a domain name geared toward brands, organizations, and services.



Image 1: <https://academy.domainx.org/>

- **ccTLD (Country Code Top Level Domains)** – These are specific to a certain country



COUNTRY	COUNTRY CODE
Belgium	.be
Australia	.au
Brazil	.br
Cyprus	.cy
United Kingdom	.uk
Italy	.it
Poland	.pl
Portugal	.pt
Romania	.ro
Spain	.es

Table of examples of country domains  
(<https://www.worldstandards.eu/other/tlds/>)

## 2.2. HOW TO IDENTIFY RELIABLE SOURCES

Although identifying a reliable source of information from the Internet is a challenging and complex task, there are some tricks to help you with. Below you can find some characteristics that can easily help someone evaluate whether a website is an appropriate resource.

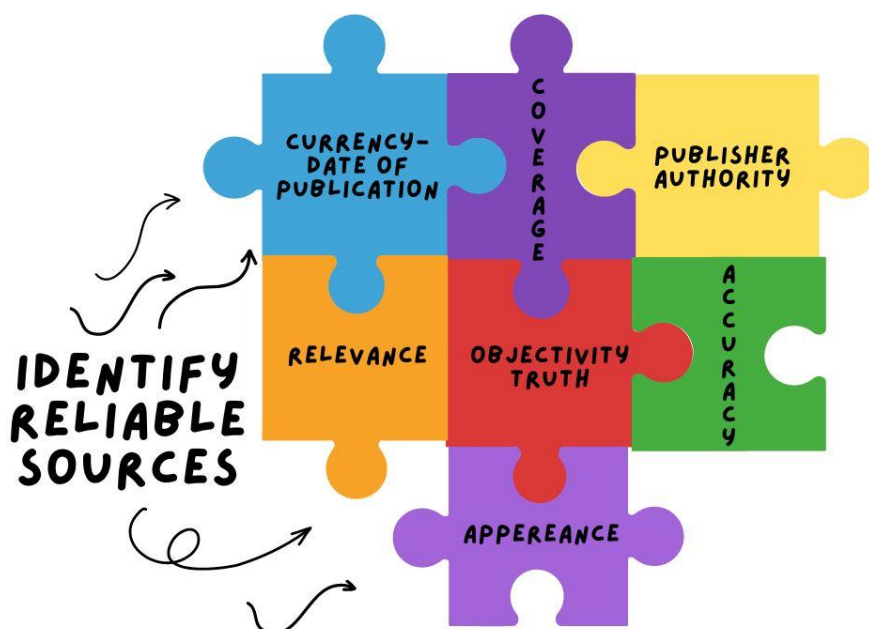


Image 2: Created by Lovila



## Accuracy

Accuracy is all about reliability, truthfulness, and correctness of the content. To check for the accuracy of an article accurate you should ask yourself:

- *Where does the data originate?*
- *Does my information have any supporting documentation?*
- *Has the data been referenced or reviewed?*
- *Can you check the information supplied using further sources?*
- *Does the author's language or tone sound slant and emotionless?*
- *Are the information's sources cited in detail so that they can be checked in another source?*
- *Is there any typographical, grammatical, or other error in the information?*

It is very crucial and important for the reader to know if the source of information is known. To be more specific, for someone to know the source it is needed for an article or an information to provide the crucial references, academic list, etc. A page without references may be useful and has ideas of an individual, an organisation however it will not be considered as information.

Grammar plays an important role, as well as spelling and typing errors. If the reader spots mistakes automatically form a bad image of him. The reader should question the accuracy of the article.

There are many indicators that can help us understand whether a source is inaccurate and unreliable. Here are some examples:

- *There is no date on the website*
- *There are vague generalizations*
- *There is outdated information that is continuously changing (for example the need of vaccination boosters against Covid-19)*
- *Ignoring opposing viewpoints on a subject*

In conclusion, accuracy is a test that must be performed on the website and the information it offers to ensure that they are accurate, current, precise, and thorough. To find/write trustworthy information, readers and writers must consider these characteristics.

## Objectivity/Truth/Unbiased

Objectivity has been the most crucial quality when disseminating information, whether orally or in writing. Because objectivity has been "elaborated, amended, attacked, and defended" by numerous individuals and professionals<sup>1</sup>, we can claim that objectivity in the media is still developing. Objectivity does not exist outside of space and time.

Anyone's first thought when discussing objectivity is the **idea of truth**. To put it another way, we often find ourselves asking, "Is this article telling me the truth about...?" Truth, on the other hand, is a knowledge that was developed based on thought and actuality. As a result, the author of an article or piece of information should be objective and free of bias when disseminating the information; otherwise, the author is not presenting the truth. The question that is raised again is how you would understand **if the writer were**



**biased or not?** The answer is that an author that is subjective and tells his/her personal thoughts and opinions uses a specific tone and has emotional writing. In a reliable website the tone of the writer would be calm and reasonable while the information is going to be written with balance and harmonical order.

Moreover, when talking about objectivity on media we need to assess the reason that the article/ information is put online. There are three reasons for an information to exist:

- 1) *To sell a product.* In this aspect the website that you will visit is going to end in .com
- 2) *To influence you.* These websites typically serve to further propaganda or astroturfing
- 3) Finally, *to inform you.* Since these websites are associated with universities, their links conclude with.edu.

Another issue that we need to stress are the obstacles that a writer or a journalist may face in the process of structing and writing a story/ article. Political opinions and attitudes but also political prejudices may appear as bias of the writers when covering an event. Furthermore, journalists and writers in general are part of but also prisoner and last a victim of their society they live, its norms and values. Therefore, it is very common for them to stress information in a wrong way due to their society they lived, so a good journalist and writer to be reliable needs to cut across this situation.

- *The commercial sites*, which most of the times it ends in .com.
- The academic sites that always ends in .edu, however you need to be careful and examine if you are on a library page, university page, professor's or student's personal page.
- There are also *government related sites* that ends in .gov and in general they are reliable. However, you have to keep in mind that a site like that may be influenced by the political party that has power and influence in the parliament.
- *Military sites* that end with .mil provide information that are almost always accurate.
- *Network sites/organizations sites* that end in .net, where they promote their work and their points through the site.
- Lastly there are the *non-profit sites/groups* such as organizations that their link ends in .org and most of the times promote the organization's point of view.

To conclude, whenever you see bias on an article that you read you should balance it to find the objective truth and information through it. There is no just pure objectivity, however every writer should have the ability to adjust and control his/her biases.

### Currency & Date of publication

Find out when a source was **published or reviewed**. In some fields, such as science, it is necessary to have up-to-date sources; but in others, such as the humanities, it is necessary to include older material. In addition, you may be looking for an older version of a source when an updated version has already been published. Search for academic resources in an academic database (or popular resources in an online bookstore) and check to see if there is a newer version. If so, you should try to find it, so you feel more



secure. The more appearances or publications a source has, the more reliable your information will be.

When someone needs to test if the currency of the website needs to ask the following questions

- *Is the source updated?*
- *If the source is updated, does the dates correspond to the information in the source?*
- *Is the person or the organisation hosting the source has commitment and stability?*
- *Does it obvious to find when the site was last revised?*
- *Is it obvious when the page was written?*
- *Is it clear when the page was first placed on the Web?*

### Relevance

It is important to remember that you can only use an information only after you **verify the author of the article**; You can do it by following the above steps:

- *If you find a book on a website, you need to determine whether the index of it is relevant to your research question and theme.*
- *Choose your sources carefully; choose those that are associated with educational institutions and the government rather than commercial sites.*
- *If you are unsure of the website's, books, or online article's applicability, you can compare it to others you've found or contact someone who is familiar with the problem you are facing.*

In general relevance is something very subjective and therefore most of the times people are not able to match the right source with their research question/ information.

### Publisher/ Authority

Who has the authority to publish information is equally important to the **quality of objectivity**. The website's author should also have his or her credibility assessed. The rationale for this is that anyone can write about a subject or provide more organized commentary on a situation, but only someone who is properly informed about or comprehends the concept, event, or item can make a remark that can be relied upon.

Although there are several networks and forms available on websites, we cannot be certain that the information being provided is accurate or that the author is a reliable source. For instance, it can be challenging to assess the author's authenticity on websites like Wikipedia and Google search.

In this regard, it would be wise to ascertain the author's authenticity prior to reading the content that displays on your screen. How can we identify a credible author is the question that has arisen. Here are some signs of knowledge you may trust:

- *If the author has an academic degree in the subject of aera.*



- *Professional work in the subject of area by organisations, NGOs, businessman or government*
- *An organisation's active involvement to the subject after spending a huge amount of time researching and studying about the subject*
- *Author's reputation and academic background (Ma, PhD etc) or current working position are important as well*

Additionally, as previously indicated, we need to check the **domain of the website** to confirm the accuracy of the information our author given to us. We must verify that the URL is associated with a reputable author or organization with reference to the search topic we have chosen.

### Coverage

Before publishing an informational piece on a website, **coverage** is another crucial aspect that must be considered. What topics are covered on each page, and to what extent, is the main question a reader or researcher must respond. Since there are other sources that might address the same topic, users should not rely solely on one website and the information it offers. As a result, you should monitor reliable sources and look into any that are brand-new or address topics that are unfamiliar to you. If you need to study the coverage requirements, some of the questions to which you might discover answers include:

- *Are the subjects successfully covered, with arguments that are clear and supported by enough evidence?*
- *Is your research's target audience appropriate?*
- *Does the work address the subject of your research?*

### Appearance

The article's **appearance** should be one of the most crucial factors considered before it is published on a website. To be more precise, the author should verify that the link functions, that the website is organized, and that the graphics and images are clear.

Similar to how a well-organized table of contents is necessary for the print version of an article or other piece of information to attract readers, readers or researchers may find a well-structured and organized website to be a better option if the links are functional, the data is easy to access, and there are graphics and other forms of multimedia.

#### 2.2.1. The C.R.A.A.P. Method

The best way to evaluate the source of an information is to utilize the **C.R.A.A.P. method**, which stands for the words **Currency, Relevance, Authority, Accuracy and Purpose**.

The five steps below are what the C.R.A.A.P. Method focuses on: currency, relevance, authority, accuracy, and purpose. The number of questions that the user must answer



appropriately for each stage is included in the step. Users must select yes or no for each of the 26 questions.

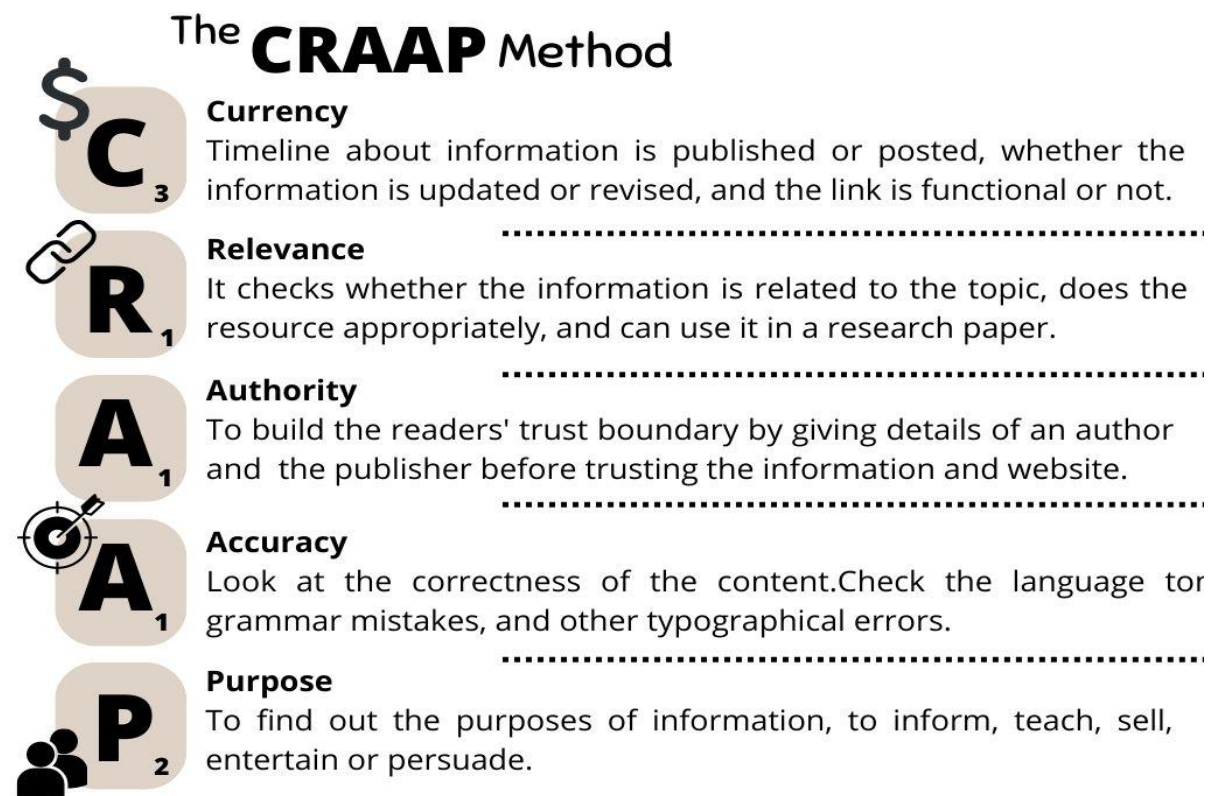


Image 3: Created by Lovila

### 2.2.2. The SIFT Method

The SIFT Method is basic four moves or “things to do” that you must do to evaluate the source of your interest. The 4 moves are stop, investigate the source, find better coverage, and trace claims, quotes, and media of the original text.

#### Stop

The first move is the simplest. STOP stands for two things.

First, *STOP reading when you first arrive at a page or post*. Consider whether you are familiar with the website or information source, as well as the reputation of the claim and the website. Use the other moves if you don't have that knowledge to get a feel for what you're seeing. Before you know what, it is, don't read it or distribute any media.

Second, after you begin to use the other moves, it can be easy to go down a rabbit hole, going off on tangents only distantly related to your original task. *If you feel yourself getting overwhelmed in your fact-checking efforts, STOP and take a second to remember your purpose*. If you just want to repost, read an interesting story, or get a



high-level explanation of a concept, it's probably good enough to find out whether the publication is reputable. If you are planning to use the source in academic writing, it's important to verify that the source and its information are credible. If you are doing deep research of your own, you may want to chase down individual claims in a newspaper article and independently verify them.

Please remember that both types of research are beneficial. Most of our online activity will consist of brief, superficial investigations, which will assist you in quickly weeding out low-quality sources. We become more efficient with the easy tasks in part so that we can devote more time to the things that are important to us. But in both situations, it's important to pause occasionally and reevaluate our response or search approach.

### Investigate the Source

Before engaging with a source, you don't have to conduct a Pulitzer Prize-winning investigation into it. But before you read an economics article written by a Nobel laureate, you should be aware of it. On the other hand, you want to know that too if you're viewing a video produced by the dairy business on the numerous advantages of drinking milk.

This does not imply that the dairy business cannot be trusted or that the Nobel Prize-winning economist will always be correct. But how you interpret what they say depends on your understanding of the source's skills and objectives. Before reading, spend *60 seconds determining the source of the media to determine whether it is worth your time*, and if it is, help you to better understand its significance and trustworthiness.

### Find Trusted Coverage

You may not always be interested in the specific article or video that is sent to you. You are interested in the assertion the article is making. You're curious as to whether it's real or false. You want to know if there is widespread agreement on it or if there is a lot of dissent.

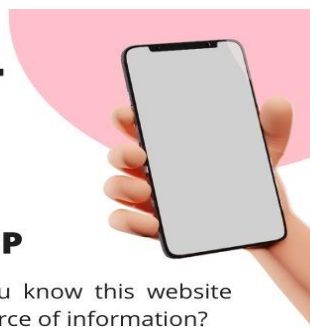
Your best course of action in this situation might be to disregard the original source that you met and seek out reliable reporting or analysis on the allegation. If you read a story from the Save the Koalas Foundation that claims koalas have just been declared extinct, your best choice might not be to look into the source but rather to seek out the finest information you can on this subject, or, more significantly, to.

### Trace Claims, Quotes, and Media Back to the Original Context

The context of a lot of the information we find online has been removed. Perhaps a video exists of a fight between two individuals, with Person A acting as the aggressor. But what transpired before the footage you're watching? What was kept in the video and what was removed? There can be a photo that appears real, but the caption is incorrect. Perhaps a new medical procedure is claimed to be effective based on research findings, but you are unsure if the mentioned research paper said what the article claims. In these instances, we'll ask you to locate the claim, quotation, or piece of media's original source so you may view it in its proper context and determine whether the version you saw was accurate.



## DON'T FORGET TO SIFT!



### 1. STOP

- Do you know this website or source of information?
- Do you understand the purpose of both the source and the information itself?
- What is YOUR purpose in looking at this information?

### 2. INVESTIGATE THE SOURCE

- You want to know what you're reading before you read it
- Knowing the expertise and agenda of the source is crucial to your interpretation of what they say



### 3. FIND TRUSTED SOURCE

- Look for trusted reporting analysis
- Scan multiple sources and see what the expert consensus seems to be
- Do you have to agree with the consensus once you find it?
- Absolutely not! But understanding the context and history of a claim will help you better evaluate it and form a starting point for future investigation

### 4. TRACE BACK TO ORIGINAL SOURCE

- Much of what we find on the internet has been stripped of context
- You want to see it in its original context and get a sense if the version you saw accurately presented
- It's about REcontextualizing
  - Who?
  - What?
  - Where?
  - When?
  - Why?



Image 4: Created by Lovila



### 2.2.3. The ACT UP Method

The ACT UP method, created by Dawn Stahura, is a way to look information through a different lens - "as informed cultural producers of information (as opposed to being cultural consumers)." The acronym of this method is consisted with five steps that you have to assess is the Author, Currency, Truth, Unbiased and Privilege.

Each letter below spells out ACT UP. Use each letter and its associated questions to better evaluate your sources through this scholarly lens.

#### A: Author

Investigate the author. A source is more credible if it is written by someone who has a degree or other credentials in the subject you are interested in. If you do not cite an author or organization, the source should not be considered highly credible. However, if the author presents the original work, evaluate the value of the ideas, not the credentials. Credentials have never guaranteed innovation, and the history of science makes it clear that great advances tend to come from outside sources, not from what is already established. Some of the questions to ask about the author are:

- Where does the author work?
- If the author is **affiliated with a recognized institution or organization**, what are their values and goals? Do you benefit financially by promoting a particular vision?
- What is the academic background?
- What other projects have you published?
- What **experience** do you have? Are you a pioneer or an advocate and supporter of the current situation?
- Did other scholars and experts in the field ever **cite you as a resource**?
- Check for the **domain** of the website (.com, .org, .edu, .gov).

#### C: Currency

When was the information created? How old is too old? Does the currency of the information matter? Has the material been updated or revised?

- How old is too old? Does the currency of the information matter? For example: consider the importance of currency when looking at information on cancer treatments vs. the history of the U.S. revolution.
- Does your assignment require you to find information from a certain date range, like the past 10 years?
- Has the material been updated or revised?
- Can you tell the last time a website was updated? (Hint: *look for the time stamp on the bottom of the web page called "**Last Updated**"*)

#### T: Truth

Is this information truthful?



- Is the information **verifiable** elsewhere? Misinformation and bad research are shared often, even on reputable websites!
- **Rule of Three:** can you find three additional sources that verifies the information?
- Is the information supported by evidence? Does the information be shared include citations? Look for the citations in the LSU Libraries databases. In news articles, blogs, etc, follow the hyperlinks to the studies that are being reported on.
- Move on from this source if you see **typos, spelling errors, or grammar faults**; this indicates that it hasn't even been edited! For instance, if the source uses their, they're, or there erroneously, it is not a reliable source.
- Observe the **language** that is being utilized. There's a good probability this is click bait or fake news if emotional or sensational language like "WHAT THEY DON'T WANT YOU TO KNOW!" are utilized.

### U: Unbiased

Bias is inherent to all of us ... so what are we supposed to do?

- Find **impartial sources** by doing some research.
- Recognize any potential **conflicts** of interest, such as those involving finance.
  - ✓ Example: an article written by Apple about the picture quality of the newest iPhone.
  - ✓ Example: an article published by the NRA on gun control.
  - ✓ Example: a study funded by Coca-Cola on the connection between sugar and depression.
- Check your **own bias** (we all have it!) This will affect how to approach a topic and your research.
- Break out of the confirmation bias habit!

### P: Privilege

Privilege does exist in the publishing, academic, and library sectors.

- Privilege in publishing means that most scholars/researchers that can publish their research in academic journals are white males (often peer-reviewed by other white males). But are they only people that might publish or write on this topic? (Of course not!)
- Who is excluded from the research discussion? Why?
- Who is **absent** from the actual research? For instance, which population is the subject of your scientific article? What effects might this have? Can we really call this a "generic" study?
- Spend some time looking for sources and writers that aren't listed in the databases.
- Information access is a **privilege** as well. As a student, you have access to the library's resources. What does this entail for those who are conducting research but are not faculty members or students at an academic institution? What resources are available at the public library? Availability of computers or even the internet is a concern.



# ACT UP

## EVALUATING SOURCES

Use the act up method to evaluate sources push against dominant narratives burst filter bubbles and oppressive citation circles

### 1. AUTHOR

- Who wrote the resource?
- Google the person or organization
- Why was the information created?
- For a website, look for the "About Us"
- Play close attention to the domain of a website



### 2. CURRENCY

- When was the information created?
- How old is too old?
- Has the material been updated or revised?
- Can you tell the last time a website was updated?



### 3. TRUTH

- Is this information factual and truthful?
- Is the information supported by evidence?
- Pay attention to the language being used
- If you see spelling mistakes, typos, or grammar mistakes move on from the source



### 4. UNBIASED

- Look for resources that are impartial
- Break out of the confirmation bias habit
- Be aware of any conflicts of interest, such as funding sources

### 5. PRIVILEGE

- Who is missing from the research itself?
- Who is missing from the research conversation?
- Access to information is also a privilege



Image 5: Created by Lovila



#### 2.2.4. The Lateral Reading

One recommended technique for evaluating a source online is “**lateral reading**”. Lateral reading involves looking for information about a source while reading it, to assess the currency, relevance, authority, accuracy, and purpose of the source. The term refers to *navigate through multiple tabs in the browser to find information about a site*. Lateral readers gain a better understanding as to whether to trust the facts and analysis presented by reading "across many connected sites instead of digging deep into the site at hand"

### Reading Laterally

Evaluate a source by reading  
about it on other, trustworthy  
sites.



Image 6: Created by Lovila



10 ways to spot and stop bogus news stories:

1. **Verify the source** of any content you plan to share at least twice and preferably three times. To find out if the story occurs in other reputable publications, Google the headline (or subject). It's (likely) not breaking news if the "breaking news" is isolated and comes from an unreliable source outside of the mainstream media. More expert writers are turning up tales that seem, sound, and incite people using false news.
2. **Be extra vigilant** when vetting sources amid tense national situations when emotions are strong. Special interest organizations frequently spread untrue information to support one or both sides of a societal crisis. Teach children to consider their actions before disclosing such material. When in doubt, avoid sharing, posting, and publishing.
3. **Watch out for spectacular reports** that seek to appear believable by fusing entirely made-up stories with real news pieces. Additionally, scan the website for absurd adverts. Weight loss supplements or celebrity rumors won't be accompanied by news stories in reputable media channels.
4. **Before you share, find out who is saying it.** Is this business reputable? Is the information (facts or opinions) slanted?
5. **Recognize objectivity.** Any genuine news report will present two conflicting points of view. The titles and veracity of sources can be found by quickly searching for them on Google. Being objective simply means to treat opposing viewpoints equally.
6. Carefully assess whether the article is a **sponsored** one. More and more special interest groups are sponsoring websites that mimic credible news sources.
7. **Look up the author's name on Google** to see what other books they have written and published. It's likely the author is not using his or her identity if you can't identify the author elsewhere and it's a "huge" narrative. A bogus article may occasionally be completely devoid of an author by line.
8. **Consider the tone and goal of the piece.** Is it written neutrally to inform and educate the reader, or is it written with bias and intended to persuade or provoke them?
9. **Check the date.** A date will almost always be included in a genuine article, although fraudulent tales frequently lack one.
10. **Evaluate the overall layout,** the quantity of clicks, and the image quality. What level of detail is in the graphic images? Is the "news" website feeling crowded? Do the story's illustrations improve the resource or detract from its information? How many clicks did it take to find the information you were looking for? Fake news is frequently presented in slide shows or with an abundance of adverts to make place for more pop-ups. A sensationalized website's ad sales are boosted when a user makes several clicks.



# 10 LOGUE

OF HOW TO SPOT AND STOP  
BOGUS NEWS STORIES



Image 7: Created by Lovila



### 3. FURTHER READING

#### VIDEOS

- [5 ways to spot fake news](#)
- [How to Evaluate Resources \(the CRAAP Test\)](#)
- [Sort Fact from Fiction Online with Lateral Reading](#)
- [70\) How to choose your news - Damon Brown - YouTube](#)
- [\(Is the Information Accurate and Documented](#)

#### CASE STUDIES

- [The case of ibuprofen: evidence of huge impact of COVID-19 misinformation when coming from credible sources](#)

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# MODULE 5: Using the media effectively



## 1. AIM AND LEARNING OBJECTIVES

### 1.1. AIM OF THE MODULE

Using the media effectively is an important point in supporting adults in analysing information so that they can be more resistant to fake news and misinformation and equipping them with tools (mobile application) to analyse fake news.

Using the media effectively means being able both to analyse the information they receive and to be an active and included part of the communication process, helping to limit vulnerability but also counteracting an overly cautious attitude of distance that leads to self-exclusion.

The aim of this Module is therefore to introduce the learner to the basic concepts of communication and critical thinking, so that, with the help of the media, the learner, by understanding them, will be able to put them into practice and thus increase their media literacy and critical outlook.

### 1.2. LEARNING OBJECTIVES

At the end of this Module, the learner will master:

- Key concepts on the effective use of communication and media
- Theoretical and practical models on how to approach the media effectively
- Tools for recognising an effective information source.

## 2. LEARNING CONTENT

Over the last twenty years, the Internet and especially the advent of social networks have been a real revolution in human sociality. The changes that this revolution has brought are of great impact and pervasive in every area of a person's life. If we reflect, most of the services that used to require direct contact are now effectively conveyed through the Internet.

This phenomenon is not just about news, it includes services and legal accreditations.

Is society as a whole able to adapt to all these changes?

Unfortunately, the Internet and digital communications, which in their early days seemed to promise a real democratisation of communication because they could give voice to anyone, have created profound differences depending on the age, schooling and level of digital literacy of each individual. Since education itself, with its potential to make people grow, now takes place through digital media, the gap runs the risk of not



being bridged, contributing to a clear division between those who are able to communicate digitally and those who are not.

In order to bridge this gap and accompany people with fewer opportunities to acquire the basic skills needed to use media (traditional and new), it is essential to start from a basic skill of the human race, the ability to communicate using a codified and complex language.

This action will also be useful in countering that counter-culture of alienation and self-exclusion to which these people increasingly resort and which is at the behavioural level a barrier on the road to full inclusion.

If in today's world communication, even official communication, has crossed the boundaries of the written language and uses sounds and images, it is appropriate to know the elementary rules of syntax.



## 2.1. THE COMMUNICATION OUTLINE APPLIED TO DIGITAL COMMUNICATION

### 2.1.1. Communication theory:

The classic communication scheme is applicable to social and digital communication. The following table shows an element-by-element comparison that highlights similarities and differences.

ELEMENT	MEANING	COMMUNICATION	SOCIAL AND DIGITAL COMMUNICATION
EMITTER	(who communicates)	Person, institution, organisation	
RECEIVER	(who receives)	Public known, defined	Unknown audience, unlimited  Information, ideas, opinions



ELEMENT	MEANING	COMMUNICATION	SOCIAL AND DIGITAL COMMUNICATION
MESSAGE	(what I communicate)	Information, ideas, concepts, opinions	
CONTEXT	(situation in which communication takes place)	Under control	Out of control
CHANNEL	(how the transmission of the message takes place)	Defined one (radio, TV, newspapers, books)	Many undefined because the channels are communicating vessels that act as a sounding board for each other.
REFERENT	(theme of the message, topic)	Defined sources, defined level of knowledge, authoritativeness of the message	Endless resources, of all quality levels, everyone can express their opinion
CODE	(language)	Defined, identifiable, regulated by rules and customs	Indefinite, multimedia, depending on the channel, the receiver, and the purpose

It becomes clear that when there is a substantial difference between the before and after digitization of communication, the indefiniteness and complexity increase, and along with these comes the risks that have to be interpreted both in the position of the EMITTER (risk of not being able to transfer the message properly - what? to whom? When? Where? Why?) and in that of the RECEIVER (risk of not being able to understand the message in a suitable way - what? Is it for me? When? Where? For what reason?).

This complexity has an even more significant impact when one considers that social media have taken the meaning of communication as conversation to the highest level.

From this point of view, it is evident how mistrust and consequent rejection is generated towards social media where the passage of communication is fast (frenetic), unsafe and undefined, triggering the fear of not being understood, misunderstood and considered or of being misunderstood, misunderstood and deceived.



The way to inclusion is not as compatible with keeping a safe distance as the ability to understand and master the mechanisms of communication in order to participate consciously.

To communicate using social media today is not simply to convey a message, it is to initiate a conversation in which feedback is potentially as valuable as the communication from which it originated. In practice, the communicator (EMITTER) expects likes, comments, and shares to which he/she may eventually respond.

## 2.2. SOCIAL MEDIA AND CONVERSATIONAL THEORY

In communication that conforms to the conversational model, it is useful to consider the Four Conversational Maxims that Herbert Paul Grice (1913 - 1988) identified as cardinal rules for effective communication. Although these maxims were developed by Grice, a philosopher and linguist, to regulate verbal exchanges in the presence, being inspired by a principle of cooperation between individuals, they can be successfully applied to a complex communication universe such as that of digital communication.

In this key, they can be used in training to provide an effective interpretative structure.

Grice is known for his 'Theory of Conversational Implications' and the formulation of the 'Co-operation Principle'. According to Grice's theory, each interlocutor in order to be effective in conversation must contribute to the communicative exchange by conforming to four maxims

- **Maximum of quantity:** offer a contribution that satisfies the request or need for information in a manner appropriate to the purposes of the discourse; do not provide more information than necessary;
- **Maximum of quality:** offer a true contribution; do not say things you believe to be false and for which you do not have adequate evidence;
- **Maximum of relation:** be relevant;
- **Maximum of manner:** be clear, avoid ambiguity and obscurity of expression, be concise and orderly.

For Grice, a conversation begins where there is cooperation between the subjects.

## 2.3. HOW CAN WE USE THE FOUR MAXIMS OF CONVERSATION IN EDUCATION?

After briefly explaining how and why social communication is similar to a conversation and what the four conversational maxims are, the lecturer asks the participants to work in small groups (of 4 or 5 individuals) and assigns each group the task of initiating a communication on a topic they are familiar with (this can be the outcome of a sports competition, the release of a film, the organisation of a trip). The initiation of the communication must conform to Grice's 4 maxims.

Back in plenary, each group takes it in turn to present its communication (verbally or in writing on a poster of their choice) and the other groups contribute to the exchange by



starting a conversation. Each member of the class can report a violation if they see it. At the end of the exchange, the facilitator invites participants to a reflection session on the exchange that has taken place.

The purpose of this activity is to bring participants closer to an active, conscious and normed use of communication. The group dimension allows for a playful atmosphere that helps people learn together and from each other. It is essential that the facilitator promotes a collaborative and non-judgmental climate.

## 2.4. MEDIA EDUCATION AND SOCIAL COMMUNICATION EDUCATION

When we talk about media education we mean

- media education (understood as useful tools in teaching processes and as part of the experience pupils have with the media)
- media education (i.e. the critical understanding of texts and the media system to enable students to use them critically and consciously).

These two ways of understanding media education both contribute to the acquisition of basic digital skills through an indirect and direct process of media communication, especially digital communication.

Whether one speaks of media education or media education, learning is aimed at the combined and organic acquisition of the practices of effective communication and critical thinking.

The skills of effective communication and critical thinking are crucial for the creation of credible and responsible news if we are in the position of the ISSUER and identification and verification if we are in the position of the RECEIVER.

The credibility of a news story (in the form of a post, article, information) is based on checking three fundamental aspects

- the content
- The form
- The credits

## 2.5. THE RULES OF COMMUNICATION: LASSWELL MODEL

In order to use the media effectively, both in the issuing and receiving phases of the news, it is necessary to refer to another 'classic' model of communication: the 5 W model.

This model was developed by Lasswell, a political scientist belonging to the Chicago School, and presents a linear structure that is able to interpret the communication process.

Although the model was elaborated by Harold D. Lasswell in 1948, at a time when no one could even imagine the digital revolution of communication and the impact of social



media, it is effective, indeed it highlights all its value precisely in the entropic environment that communication expresses nowadays.

"A convenient way to describe an act of communication is to answer the following questions: Who Says What in Which Channel To Whom With What Effect?"

With this short and effective definition, Lasswell identifies an all-encompassing model that is valid in all areas of communication, including future ones.

This paradigm is based on the idea that communication (and the propagation of news) performs three social functions: surveillance, correlation and transmission. The media in Lasswell's conception were intended to have an impact on people's ideas and beliefs, which is an extremely topical issue considering the current pervasiveness of information.

Creating effective communication and consequently receiving effective communication means answering the questions:

- who?
- says what?
- by what means?
- to whom?
- with what effects?

## 2.6. REFLECTIONS ON HAROLD LASSWELL'S MODEL WITH REGARD TO SOCIAL COMMUNICATION

Lasswell's model focuses on who activates the communication process (sender) and produces the message. Since the social communication model, as described above, coincides in many respects with the conversation, it is evident that all parties included in the communication process are required to respond to the 5Ws if effective communication is to be pursued.

Responding to the 5 Ws even when commenting on news is a valid antidote to today's social communication frenzy.

Here is the application of Lasswell's model to a social communication of the dissemination type.

If I issue the message:

- *Who?* In what capacity do I communicate this news? "I am an expert on the subject"
- *says what?* What is the content and what is important?
- *in which medium?* Which medium do I choose post/article/comment/instant message and on which platform do I choose to communicate
- *to whom?* Who are the recipients of my communication? Customers? Experts? Students?
- *with what effects?* Do I want to teach? Do I want to show my expertise? Do I want to open discussion channels? Do I want to sell a product or service?



If I get the message:

- *Who?* Who writes? What are his competences?
- *says what?* What is the content and what is important?
- *in which medium?* Which medium did he/she choose post/article/comment/instant message and on which platform
- *to whom?* Who is it addressed to? Is this a message for me?
- *with what effects?* What do you wish to achieve?

WHO	COMMUNICATOR/EMITTER	SENDER INVESTIGATION
say what	MESSAGE	Content investigation
in which channel	CHANNEL	Media Enquiries
to whom	TARGET/RECEIVER	Receiver investigation
with what effect	IMPACT	Effect studies

If Lasswell's original model presents communication as a one-way street, which does not consider the receiver's feedback, in the application of the model to social communication, which now influences all our interactions, we cannot help but consider feedback as an integral element of communication itself, capable of orienting it and defining its developments.

The mostly asynchronous mode of these exchanges directs us towards a model that multiplies the issuers. The relevance and understanding of one's position in relation to the message is fundamental in the construction of effective communication.

## 2.7. HOW CAN WE USE THE 5W THEORY IN TEACHING?

The proposal is for participants to experiment with the 5W theory. The teacher asks participants to work in small groups (of 4 or 5 individuals) and assigns each group the task of 'realising' a social communication.

The topic is common to all groups: talking about the training they are engaged in. This is the only element common to all as each small group will have a sheet containing this information:

- Who? That is, who is the author of the news
- To whom? I.e. to whom the news is addressed
- What? What is the message/information
- To achieve what effect? A choice of possible e.g. witnessing / convincing / telling / sharing emotions
- With which channels? Which social channel among Facebook, LinkedIn, Instagram, Email, WhatsApp and which language (writing, video, audio, etc.)
- A surprise element out of context that has to be included in the message.



The last element functions as a constraint and serves to activate the creative and problem-solving process by preventing participants from leaning too much on preconceived conventions.

The groups have 15 minutes to realise their social communication. When they have finished, in plenary each group illustrates its work and peers outside the group are invited to identify the 5 Ws of the message.

This phase in plenary is usually a lot of fun, full of observations and jokes. This is the moment when the lecturer can contribute some technical and management information.

## 2.8. CRITICAL THINKING AND SOCIAL MEDIA

If we stop to observe our own behaviour or that of the people we most frequent in our daily lives, whether family members or colleagues, we cannot fail to notice the space that social media occupy in our lives. The continuous and massive access to information through devices no longer has time or contextual limits: we are constantly exposed to data and information that, in some way, condition our state of mind and contribute to defining our thinking about what is happening in the world, or much more simply, beside us.

Several studies confirm that continued use of the Internet diminishes our critical thinking. Apparently, some aspects of the internet do not help to develop this ability, on the contrary, they weaken it. This is not a feared hypothesis, but a conclusion that emerges from analysis. The network operates within logics that, naturally, have consequences.

How does this happen? Many functions, services or spaces on the web, from search engines to social networks, work with algorithms. The principle would be to 'match' the user's interests and preferences. Over time, however, they end up limiting the surfers' experiences on the web.

Let us go into more detail. There has already been much discussion in the past about the phenomenon known as agenda setting, i.e. the power of the media to filter and manipulate information by focusing users' attention only on predetermined topics, thus orienting collective opinion. A similar but more refined process takes place on social networks, channels on which millions of different kinds of content are published and shared every day: an algorithm based on meaningful interaction is used to filter the news, which shows the user only the content with which they have interacted and towards which they have shown interest.

This mode, apparently effective and functional, creates an increasingly muffled and restricted virtual comfort zone. The so-called 'filter bubble' is thus created: users display news on their feed, algorithms propose similar content and individuals find themselves in a bubble in which they only have access to information that only confirms their own beliefs.



At first we set our own 'agenda' of interest, but soon our decision-making ability passes to the algorithm that locks us into this bubble to make the experience on social as gratifying and long-lasting as possible.

This process gives impetus to a further phenomenon: the echo chamber. The echo chamber refers to a situation in which a person receives a series of information or ideas on the internet that reinforce their point of view, without having access to other resources that could provide a different perspective and thus a more objective view of the situation.

The consequences are exponential: first of all, a progressive isolation due to the rigidity and limitation of the topics to which one exposes oneself, it is as if our interests are hypodermically inoculated, annihilating any stimulus towards curiosity, openness to new topics, and proactive search for information.

Social media become mass distraction tools that omit important information from our view.

The result is the weakening of critical thinking.

There are **three main ways** in which the **Internet acts** in this regard.

### **1. Information found on the internet confirms our opinions.**

When we search for a word on the internet, the search engine activates a series of parameters based on the information it has previously gathered about us. In this way, the first sites to appear in the list are those we visit most often or that contain information we usually consult. Needless to say, a significant amount of material is left out of the search.

Something similar happens in social networks. As soon as we log in, we see in the foreground the posts of people with whom we habitually interact and who, in principle, think in a similar way to us. Without realising it, our circle has already shrunk considerably.

Algorithms imperceptibly catapult us into an ideological world that confirms our opinions. They avoid putting us in touch with information and ideas that conflict with our own, giving us a limited idea of the reality around us. We are convinced that we know reality without realising that we are being encouraged to see only a slice of it. This is the first reason why the Internet reduces our critical thinking.

### **2. The Internet encourages narcissism and diminishes critical capacity**

Social networks have created a new kind of addiction, that of **'I like'**. We don't do it consciously, but every time we post, in one way or another we expect the reactions of our friends, the approval of what we have posted. If no one does, we get frustrated and even doubt the validity of our thoughts.

Science says that **'I like'** activate the secretion of dopamine and act as reward mechanisms. They make one feel good because they imply acceptance by the



community. This can become a problem when this addiction shapes our ideas or words, without us realising it.

Another way in which the Internet diminishes our critical thinking is precisely this: by converting our ego into a product of social consumption and the constant search for approval. Disagreement can mean leaving a group, having to face rejection or criticism. Fear of consequences can powerfully condition our thinking.

### **3. Encourages irrelevant social relationships**

There are different ways to interact online: social networks, but also forums, chats, etc. The web gives us the false feeling of not being alone, in a conversation that seems to have neither head nor tail. This endless dialogue revolves around topics that become 'common'. Whether we like them or not, these topics must be talked about.

Gradually, the Internet makes physical contact superfluous. Internet interactions always involve the same posture: sitting and in front of a screen. Both situations have an effect on the body and the brain.

Movement stimulates intelligence, physical contact increases the ability to feel empathy, exchange and affection. The Internet induces us to adapt, voluntarily and meekly, to new ways of relating to others, moving us away from direct experience of real life. The risk is that we begin to see the world through a narrow and limited frame: our computer screen.

We are becoming used to an unprecedented intellectual laziness: we are satisfied with information provided to us without checking the source, without seeking a critical voice, outside the chorus. We practise thinking that our opinion is true and irrefutable because it is reinforced and proven by a mass of news, thus losing the ability to question ourselves.

The solution, as always, is awareness and intentionality: the internet is a very powerful tool at the service of mankind, an enormous resource that cannot, however, be considered exhaustive. We need to be educated, oriented and prepared for the inexhaustible digital source flowing from our screens, only then will technology be an asset and not a threat.

## **2.9. HOW CAN WE PROMOTE THE DEVELOPMENT OF CRITICAL THINKING?**

People who have not developed critical thinking generally content themselves with elementary explanations in line with their own cognitive biases and prejudices, preferring slogans to arguments and uncritical acceptance over in-depth investigation and verification of sources.

From the Facebook contact who shares fake news to the big manager who makes rash decisions without questioning the data he has at his disposal, individuals with insufficiently developed critical thinking risk seriously damaging themselves and others.



The above leads us to the concept of 'functional illiteracy', i.e. the inability to correctly interpret texts and messages demonstrated by schooled people who theoretically should be able to understand and verify the information presented to them.

An increasingly large segment of the schooled population avoids complexity, seeing it as a threat rather than a challenge, leading society towards a regression with worrying contours. The best way to counter this tendency is to adopt and develop critical thinking skills and apply them to the challenges of everyday and professional life.

To develop critical thinking, the key to the whole operation lies in the objectivity of the subject. Indeed, the critical thinker must be able to leave behind his or her own feelings, prejudices and interests in order to pursue a view that is as objective and real as possible based on facts and context. Knowing how to challenge preconceptions and adopt new perspectives in the name of impartiality, in fact, is one of the basic requirements of those who are willing to put their critical thinking to the test.

### **3 points of view useful for developing critical thinking:**

#### **1. Recognise your biases... and put them aside!**

Biases, also known as 'cognitive distortions', include generalisation, prejudice, polarisation (seeing things only as black/white, right/wrong) and so-called 'selective attention', that is the tendency to select only those parts of a discourse that support our beliefs and opinions. The first step in understanding how to develop critical thinking is to accept that we all have biases and to be able to put them calmly aside.

#### **2. Exercise proactivity**

Being proactive means playing an active role in our lives and being a driver of the changes we would like to see in the world. The alternative? Living as actors who react exclusively to what happens to them, limiting ourselves to adapting our behaviour always 'in response' and never 'in proposal'.

Why suffer change if we can be its author? Training proactivity means putting one's mind at the service of personal and collective progress, and it also helps us become more competitive in the labour market.

#### **3. Expand your horizons**

When faced with a difficult problem or choice, try to go beyond the conclusions your mind automatically generates. Think about what another person would do and what an outsider would think. Adopt their perspectives and you will realise that the same problem and choice can be approached in many different ways that you probably would not have thought of.

Always question everything and delve into news, opinions and comments to keep only the elements that correspond to reality with you.

In general, a person who trains his or her critical thinking is less susceptible to manipulation, makes more informed decisions and is able to solve problems and conflicts in a more effective and original way, because critical and creative thinking often



work together. Let us apply the two approaches to the same well-known riddle: a man falls from a 40-storey building and survives - how is this possible?

Using critical thinking we can hunt for eventualities that might explain the strange event:

- the man could have fallen on a mattress placed there by firemen,
- the fall could have been mitigated by a series of obstacles that slowed it down.

Employing creative thinking, on the other hand, we can explore the matter by looking for possible logical flaws:

- the building is 40 storeys high, but nobody said that the man fell from the highest one;
- he was the actor in an action film who, fortunately for him, was wearing a parachute at the time.

Combining these two soft skills, can help to collect a much wider, more diverse and unusual range of solutions than those who only exploit uncritical, vertical thinking.

## 2.10. SYNTAX AND RULES FOR EFFECTIVE SOCIAL COMMUNICATION - SOCIAL MEDIA ARE NOT ALL THE SAME

The aim of this last section of the chapter "Using media effectively" is to enrich the knowledge of digital and social media channels as an integral part of the "context" of the modern communication process.

Since it will not be possible to survey all the existing platforms that continue to appear on the digital landscape, the handbook will refer to those that are best known and most relevant to the project's target audience, while still providing evidence of a method of approach that can be critically applied to other platforms.

The presentation of social and digital channels follows a recurring pattern, the structure of which we explain here:

- Brief history
- What kind of communication
- Some syntax rules
- Common scams and risks to watch out for

Let us start with the definition of social media:

The most widely accepted definition of social media is that given by Andreas Kaplan and Michael Haenlein in their article 'Users of the world, unite! The challenges and opportunities of social media' for whom social media is "a group of Internet-based applications that form the ideological and technological foundations of Web 2.0 and enable the creation and exchange of user-generated content".



The identifying characteristic is therefore the horizontality in the creation and dissemination of content as opposed to the verticality of traditional mass media.

All the subjects of the communication project are at the same level and this democratic nature changes the traditional roles of communication because each message is multidirectional, i.e. there is a shift to 'many-to-many' or 'peer-to-peer' transmission. The 'monologue' becomes a 'dialogue', a conversation, between users, media and companies, sender and receiver alternate in a continuous flow of roles, without predefined hierarchies.

Social media have become very popular because they allow people to use the Web to establish personal or business relationships. They are also referred to as user-generated content (UGC) or consumer-generated media (CGM).

Social media have been growing in popularity for several decades now, and are now specialised by domains.



### 2.10.1. Facebook

Facebook was born in 2004 from the idea of some students at Harvard (USA) who wanted to create a 'social network' within the university. One of these students was Mark Zuckerberg, who was able to turn a small university application into the globally spread social network we know today.

A trace of its origin remains in its name, which refers to the school yearbook, of which it is the digital version: students living on campus could get to know each other from a personal file, full of pictures and indexed information.

Since its inception, Facebook has been at the centre of controversy and court cases

over the use and obtaining of personal data. Nevertheless, its expansion has been unstoppable and since 2006 it has been open to anyone over 13 years of age.

Facebook's functionality has grown year after year also through a clever policy of acquiring competing companies and integrating the most significant functionalities.

Zuckerberg, starting in 2012, acquired Instagram and WhatsApp. By now, since 2018, Facebook is the social network with the largest number of active users governed through a Facebook Algorithm that chooses the content to be shown to users by creating the so-called information bubble.

Facebook had to provide for anti-fake news measures that allow the possibility of the user to report fake news, and their deletion upon reaching an appropriate number of negative feedbacks.

In 2015, Facebook introduced emoticons to allow a more detailed emotional reaction to statuses and news items, in addition to the like.

#### What kind of communication

Although it is still the most popular social network with 2.797 billion monthly active users, it is not the most sought after by a young audience that seems to prefer services such as TikTok or Instagram. Presence in the social media is possible in two types:

- Individual account
- Page of an organisation, cause, project used for marketing and promotion and administered by one or more individual users with assigned roles



**2004, February**

**2.797 billion  
monthly  
active users**



*Developed by LABC from Creative Commons images*



For individual accounts, the main function remains the sharing of experiences and emotions.

There is a code of ethics that is subscribed to when signing up and which provides for blocking the user in the event of violation. For example, in 2021 Donald Trump's account (not only on Facebook but also on other social channels) was blocked because it was considered that he had used the platform's potential to foment the violence that led to the attack on the US congress.

Very famous is the 'Cambridge Analytics' case revealed by an article of 17 March 2018 in the pages of The New York Times and The Guardian: through an apparently harmless app ('This is your digital life'), the platform allowed the improper acquisition of the personal information of around 87 million Facebook users and on the basis of this information, the results of the election campaigns of Donald Trump and Ted Cruz, but also the campaign in support of Brexit, were influenced.

### Some syntax rules

The tone used is often confidential, texts can be enriched with smileys and emoji to emphasise and reinforce the message. It is possible to share activities, emotions, memories and opinions. Anyone can write anything with no need to check the sources.

### Common scams and risks to watch out for

Facebook is a huge virtual square, it is important to know that what we can see in the feed available to our user is the result of the algorithm. So it is possible to get the impression that Facebook users have our ideas and interests. We have to be aware that we are inside an information bubble that should not exhaust our thirst for information.

In addition, there are many fake accounts on Facebook that could ask for our friendship, capture our trust and attempt to manipulate or cheat us. There are a few good rules we can follow before befriending a user who contacts us:

1. Grant friendship to users of people we know in real life;
2. If we don't know the user who asks to join the group of our friends, we view the profile, if it has very few photographs, a few posts perhaps repeated and little news, it is probably a fake produced by an automatic programme;
3. If someone asks for money for a cause using the instant messaging system, we do not send money, let alone give access to credit card numbers. Remember that there are other ways to fund good causes! If we are in doubt, we ask for official channels.



### 2.10.2. LinkedIn

If Facebook was born in a university environment, LinkedIn has since its inception in 2002 shown its vocation as a service dedicated to the sphere and the labour market.

Today, LinkedIn is a professional social media spread over more than 200 countries with 774 million users.

Its creator Reid Hoffman, a graduate in Cognitive Science (1990) with a major in Philosophy (1993), with a professional background in information technology, had already developed eWorld, an unsuccessful professional social network

for Apple Computer in 1994. After this first unsuccessful experience, he launched his first start-up SocialNet.com, a website capable of connecting people with similar interests, which was the true precursor of today's social networks. Unfortunately, the time was not yet ripe, and Hoffman changed sectors and contributed to the creation of PayPal, an online money transfer service, of which he first became COO (chief operating office) and then executive vice-president. In December 2002, after the acquisition of PayPal by Ebay, he and three former colleagues and a high school friend started the LinkedIn project.

The initial idea was to connect companies and candidates, but the social network evolved to become the world's leading professional network aimed at increasing productivity and success.

LinkedIn is a social platform dedicated to professionals to offer business networking opportunities to search and offer jobs online. The service is Worldwide and available in 24 languages.

Today, LinkedIn is a database of professional profiles, the first place where recruiters look for candidates and the social where you need to be if you are looking for a job.

The main functions are:

- publish CVs to find jobs;
- share valuable content and projects;
- find new clients or collaborators;
- keeping informed.

Today, LinkedIn has more than 16,000 employees, 33 offices in more than 30 cities and follows a diversified business model capable of adapting to different national contexts.



**2002**

**830 million  
members  
and over  
58 million  
registered  
companies**



*Developed by LABC from Creative  
Commons images*



### What kind of communication

LinkedIn is dedicated to news about professional life and companies. Personal or recreational topics are not shared.

LinkedIn is a serious, somewhat formal digital place, where controversy and unconstructive discussions should be avoided. On the other hand, it is a place full of information and references for those who want to expand their knowledge on a topic..

### Some syntax rules

The tone is professional, it is best to avoid or at least limit emoticons. Personal opinions must be supported by sources. Videos are mostly institutional.

### Common scams and risks to watch out for

Many LinkedIn users complain that they often get no feedback on their application for a position posted on LinkedIn. This occurrence can be blamed on the bad behaviour of companies that under-staff candidates who are not interesting to them. on other occasions, it is a matter of covert advertisements used by HR to do bench marketing on certain positions.

In addition to these which are bad habits, there are real scams such as a phishing campaign that in 2021 attacked LinkedIn by sending fake job offers hiding malware in the PC that allows remote control.

The fake job offers exactly matched the wording of the last job advertised on the profile.



### 2.10.3. Instagram

Instagram is one of the most popular social media, with more than one billion active users.

Instagram has had such widespread success that it has created a new professional figure, that of the influencer, i.e., the new owner of a profile with a large following (counted in followers) and for this reason able to influence opinions, habits and consumption within the community that follows him.

The first image shared for testing on Instagram is dated 16 July 2010 and is a photo depicting the dog of one of its

creators, Mike Krieger and Kevin Systrom. On 6 October 2010, the Instagram app was launched for the first time.

The original intention was to propose a social media with the function of a shared photo album.

Its evolution has been so significant that for many features it has served as an example for other social media: hashtags (2011), video sharing (2013), stories (2015-2016) and reels (2020) first appeared in Instagram and are now present in almost all social channels. This standardisation and transferability of functionality is also the result of the acquisition of Instagram by Facebook in 2013.

Instagram also developed a large set dedicated to communication, both in the sense of messaging and video calling.

Today, of Instagram's original vocation for photo collections, only the logo remains. By now, Instagram is a powerful commercial communication channel especially for fashion or image-related brands.

Every day, around 80 million photos are shared on IG and there are around 3.5 billion likes.

#### What kind of communication

Any communication in Instagram contains at least one image. The tone is hardly serious, it is good to choose a short message that is effective and directly related to the visual content. Often the text is partly within the image itself.

#### Some syntax rules

Texts cannot exceed 2,200 characters because they are intended as captions for photos. Ideally, you should stay within 125 characters, so that the message will be all visible



**2010, October**

**1.074 billion  
active  
monthly  
users**



*Developed by LABC from Creative Commons images*



without requiring the audience to click again. This is crucial because Instagram is natively a social media for smartphones.

Instagram hashtags should follow the text separated from the caption by a line or dots and should be chosen carefully.

They are very useful to increase the visibility of your post and to reach those users who may be interested in your topic.

Instagram does not have a real text editor (you cannot wrap or change the font except with accessory tools for professionals).

To get around this limitation it is useful to use emoticons or write the text in another app (e.g. 'notes' on your smartphone), copy the formatted text and paste it into the caption of the Instagram post

#### Common scams and risks to watch out for

Such a widespread social media attracts the malicious and many scams are perpetrated daily against the naivest users. One of these is the one in which the user is tagged in a story as the winner of an expensive object (latest I-phone model for example). It is a good idea not to reply, to report the user and never to give out one's personal data.



#### 2.10.4. WhatsApp

WhatsApp is an instant messaging system but is now integrated with popular social media.

The creators, Jan Koum and Brian Acton, are former Yahoo! employees who aspired to join the Facebook team before embarking on their adventure.

The idea for WhatsApp was born in 2009 when Jan Koum started thinking about creating an app that would allow users to have conversations with friends, colleagues, family etc. The first funding of \$250,000 came from some friends at Yahoo.

The goal is to allow interference-free, immediate and fast communication, without games and without advertisements.

The beginnings were not so easy that Koum was tempted to give up.

In 2009, WhatsApp was available in the app store for iPhones and a couple of months later a version for Blackberrys was also ready.

Since then, the application has grown exponentially and in 2013 it already had over 200 million users and enticed Facebook to acquire it for around \$19 billion.

Zuckerberg's investment is repaid by success and in 2016 there are more than 1 billion users and still growing.

Koum and Acton remain at the helm and the logo is the same one they designed at the beginning.

##### What kind of communication

It also allows written chats with several people through the definition of groups, the sending of images and documents, call conferences in twos or groups. It is also a popular collaboration tool that speeds up the transfer of information. It has a widely used PC version.

It is increasingly being used in marketing.

##### Some syntax rules

There are no specific rules.



**2009**

**1.6 billion  
active users,  
in over 180  
countries  
worldwide.**



*Developed by LABC from Creative Commons images*



### Common scams and risks to watch out for

Chain letters have found their new channel here, facilitated by the simplicity with which messages can be forwarded and spread. For this reason, WhatsApp has included a limit of 5 possible 'forwards' per message and the impossibility of multiple forwards.

These measures were introduced during the pandemic to limit the spread of hoaxes about the coronavirus. Forwarded messages are distinguishable from others by a double arrow icon..



### 2.10.5. E-mail

The birth of the Internet is due to the ARPANET (Advanced Research Projects Agency Network) project that the US Department of Defence initiated in September 1969 to facilitate communication between different departments.

The first experience of online communication had been developed in 1965 at MIT in Boston: the MAILBOX programme that allowed students to send messages to their colleagues. It was an innovative system at the time but rather crude-

It was Ray Tomlinson, from the ARPANET team, who invented a programme that allowed agency employees to communicate, giving birth to the modern e-mail.

The first e-mail was sent in October 1971, quickly supplanting the telegraph (1930s) and the Telex (1960s).

It was Tomlinson himself who invented the snail that served to identify the recipient. The first addresses are constructed as username@nomecomputer.

The success of ARPANET prompted the development of the programme to improve the service: in 1975, John Vittel realised the functionality to organise the messages sent and Shiva Ayyadura divided the boxes into 'inbox messages' and 'outbox messages'.

The first mailing lists were born, i.e. discussion groups using e-mail, and in 1980 emoticons were introduced.

When the first Internet Service Providers appeared, the scope of e-mail no longer had any boundaries.

E-mail services in their early days are very different from the ones we know and were inspired by Microsoft Outlook (1992).

Since the arrival of Hotmail in 1996, followed by Yahoo Mail, e-mail has been online.

Currently and since 2007, it is Gmail that dominates the market also thanks to its recent integration into a large office suite.

The evolution of e-mail is certified e-mail. This is an application capable of producing communications accompanied by a legal digital certificate. In Italy, it is a requirement for communications with government bodies. In this regard, the situation is not homogeneous within the European Union and a complex approval process is underway.



1971

widespread,  
pervasive



*Developed by LABC from Creative Commons images*



The PEC box resembles a standard e-mail box, but the message path is traced. The sender gets confirmation of receipt and reading, and the message cannot be altered.

In Italy, having a PEC is mandatory for any business activity.

### What kind of communication

E-mails are now so widespread that they are not part of the context. The tone depends on the writer, the receiver and the aim of the communication.

A large part of the syntactic rules of communication through texts derives from what has been developed at the linguistic level with e-mails.

### Some syntax rules

The rules are derived from the rules of written communication in letters. The always valid advice is not to write verbose or redundant texts, to use bullet points to outline concepts and not to abuse images that weigh down the transmission of the message.

In addition, there are some alerts to consider in order to fully master communication:

1. Writing in CAPITAL letters is conventionally equivalent to shouting (to be used wisely so as not to upset the interlocutor)
2. Copy only the addresses of the people that are actually involved (we are now overrun with e-mails and many are in danger of not being read)
3. Choose subjects that are relevant, comprehensible and ready for archiving.

### Common scams and risks to watch out for

Many types of scams can be perpetrated via e-mail, but this is the ideal environment for phishing. Mails very similar to the real thing in content, layout and sender are sent requesting personal codes and data, secret passwords, and access to banking services.

And it is a good rule never to disclose one's codes even to the organisations that issued them!

Less dangerous but, until a few years ago, very widespread are chain letters, a system for multiplying a message by prompting the recipient to multiply the mailings on the basis of superstition, the promise of a win or a gain.

This practice already existed before digital communication and dates back to the tradition according to which inducing friends and acquaintances to pray to a saint was a way to obtain his benevolence and the fulfilment of requests.

Today, chain letters are mostly found on Whatsapp.



### 3. FURTHER READING

- *A Quick Guide to Setting-up Social Media Accounts for Your Business:*  
<https://aspireinternetdesign.com/social-media-blogging/quick-guide-setting-social-media-accounts-business/>
- Steven Levy, *Facebook: The Inside Story*, February 25, 2020, Blue Rider Press
- Jason Steinhauer, *History, Disrupted: How Social Media and the World Wide Web Have Changed the Past*, 2022, Palgrave Macmillan
- Movie: *The social Network*, by David Fincher, 2010, Columbia Picture.
- At the following links you can find some videos about critical thinking:  
<https://www.youtube.com/watch?v=dItUGF8GdTw>  
<https://www.youtube.com/watch?v=NHjgKe7JMNE>  
<https://www.youtube.com/watch?v=vNDYUlxNIAA>

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<https://www.holler.io/insights/conversational-media-defining-a-new-digital-medium>
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<https://unesdoc.unesco.org/ark:/48223/pf0000265552>
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<https://www.forbes.com/sites/andrewarnold/2018/02/27/how-to-maintain-critical-thinking-in-the-modern-world-of-new-media/?sh=7133ccfc50e5>
11. McCombs M. E., Shaw D. L., Weaver D. H. (2014). New Directions in Agenda-Setting Theory and Research. *Mass Communication and Society*, 17:781–802  
[http://www.bemedialiterate.com/uploads/1/7/2/2/1722523/agendasetting\\_2014.pdf](http://www.bemedialiterate.com/uploads/1/7/2/2/1722523/agendasetting_2014.pdf)



# MODULE 6: Online tools to support your work



## 1. AIM AND LEARNING OBJECTIVES

### 1.1. AIM OF THE MODULE

The aim of this module is to provide information on available online tools, such as platforms, apps or web extensions, so that once you are familiar with them you can choose the right tool to help you analyse the information you receive and strengthen your critical thinking skills. The module also includes available online courses in the form of games to help you develop your ability to recognise disinformation and fake news.

### 1.2. LEARNING OBJECTIVES

By the end of this Module you will be able to:

- distinguish various types of online tools
- decide which tool to choose to analyse information found online
- use the selected tool
- become resistant to the manipulation techniques used by some news media.

## 2. LEARNING CONTENT

### 2.1. ONLINE TOOLS AVAILABLE TO VERIFY INFORMATION

Fake news is a problem that affects the whole world. Disinformation, whose main purpose is to mislead the viewer, create uncertainty and chaos, has an incredible power and influence on society's decisions in everyday life and on every level. More and more people are becoming aware of the existence of disinformation, but the problem is, one might say, almost impossible to control. Disinformation has the ability to spread at the speed of light. Is there therefore a solution to this problem?

Tools to help you distinguish and verify the information you receive can help.

In this module you will find information about the available free online tools, platforms and applications to help you distinguish between disinformation and fake news.

Recently, more and more tools for verifying fake news have been developed.

However, no tool has yet emerged that can flawlessly distinguish truth from falsehood. Nevertheless, many of these tools available online are able to support you in verifying the information you receive. When it comes to choosing the right tool, it will depend on the type of information received; is it a **photo**, a **video** or perhaps an **article** on a portal?



## 2.2. ONLINE PLATFORMS AND APPLICATIONS FOR FACT CHECKING

### 2.2.1. AdblockPlus

AdblockPlus, an application and browser extension designed to block malicious adverts, but also to block sites that spread disinformation. The tool was founded in 2011 and is free and open source.

You can adjust the default settings so that even adverts "whitened" by the tool, i.e. those that meet the standards for acceptable adverts, will not appear. This setting ensures that disinformation, that is spread through advertising is combated and that cookies and trackers cannot monitor the websites being viewed.

With this tool, you can block, YouTube adverts, Facebook ads, banners, pop-ups or any other annoying adverts.

## Surf the web with no annoying ads

- ✓ Experience a cleaner, faster web and block annoying ads
- ✓ Acceptable Ads are allowed by default to support websites (learn more) <sup>[4]</sup>
- ✓ Adblock Plus is free and open source (GPLv3+)

By clicking the button below, you agree to our Terms of Use.



[Download Adblock Plus for another browser](#)

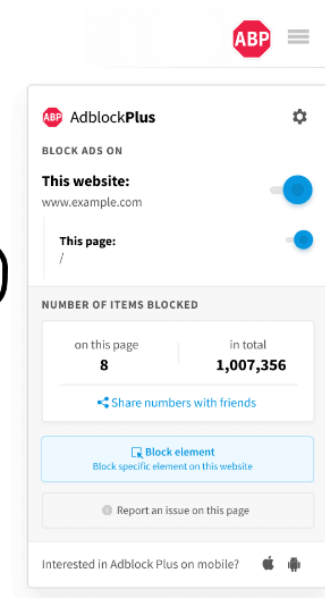


Image 1. Source: <https://adblockplus.org/en/>

### 2.2.2. Factual

It is a mobile application and browser extension that verifies more than 10,000 news articles every day for their credibility. Among this tool you will find up to five products, allowing you to receive the most reliable information. These are:

newsletter, website, mobile application (iOS, Android), Chrome extensions, IsThisCredible.com website - if you have found an article that does not seem credible to you, here you can have it evaluated and verified, as well as find reliable information on any topic.



The Factual is powered by an algorithm which rates the content on a 0 – 100 % scale. The rating focuses on four indicators, namely:

- *sources*: how extensive and diverse it is, are they primary or secondary, do they repeat, are they politically diverse, how many and how long are the quotes?
- *tone*: how neutral it is, does the author try to convey or agitate the information?
- *topical expertise*: did the author write on the topic before, how the previous articles rates?
- *site reputations*: what is the site's historical average?

The rating is interpreted as the probability that the article is credible. An article with a rating of more than 75%, is considered informative, while article with a rating of less than 50% is consider as less credible.

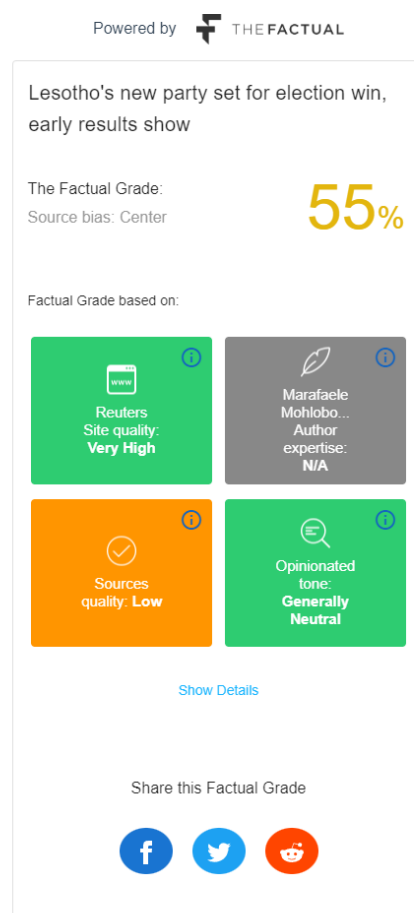


Image 2. Source:

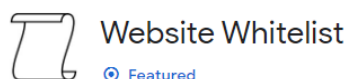
<https://www.isthiscredible.com/?url=https://www.reuters.com/world/africa/lesothos-new-party-set-election-win-early-results-show-2022-10-09/>



### 2.2.3. Website Whitelist

This is a browser extension that only allows requests to sites that you consider trustworthy. Requests to untrusted websites are blocked, by assessing the domain to see if it is whitelisted. If the requested site is not found, the request is automatically blocked before it starts.

With this extension, you will protect yourself from redirection to bad sites by hackers and the spread of malware.



Featured

★★★★★ 11 ⓘ | Productivity | 673 users

Overview

Privacy practices

Reviews

Support

Related

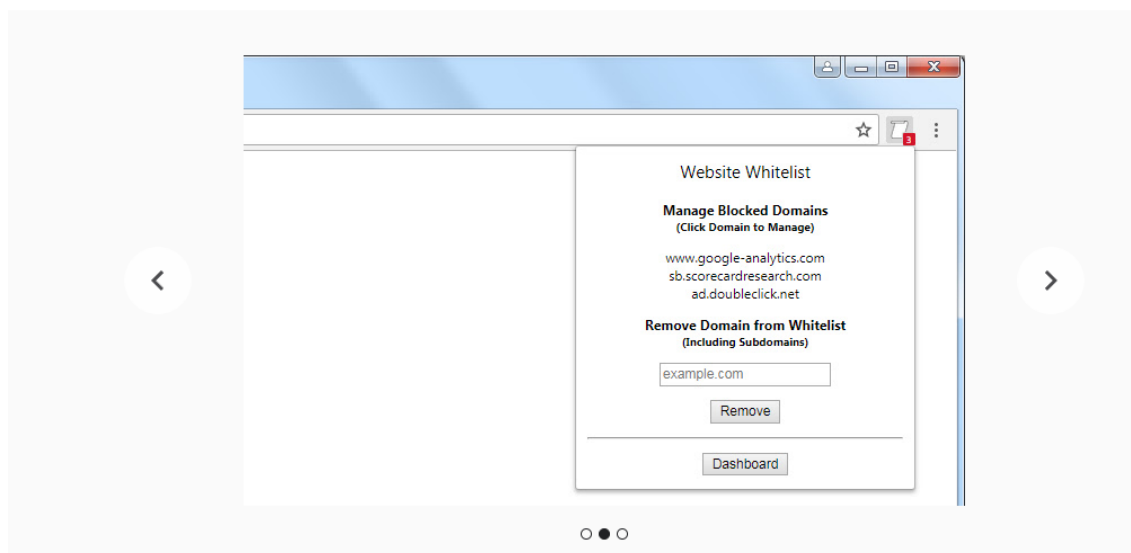


Image 3. Source: <https://chrome.google.com/webstore/detail/website-whitelist/bmlipnlhfpjgmajlennmdkldjmebahnm?hl=en>



#### 2.2.4. Domain whitelist

An ad blocker, that allows requests from a list of domains you specify. It blocks all website requests, thus if you want to see a particular site, you have to allow it in the pop up window. It is the world's smallest interactive ad blocker, its source code is only 5 kB.

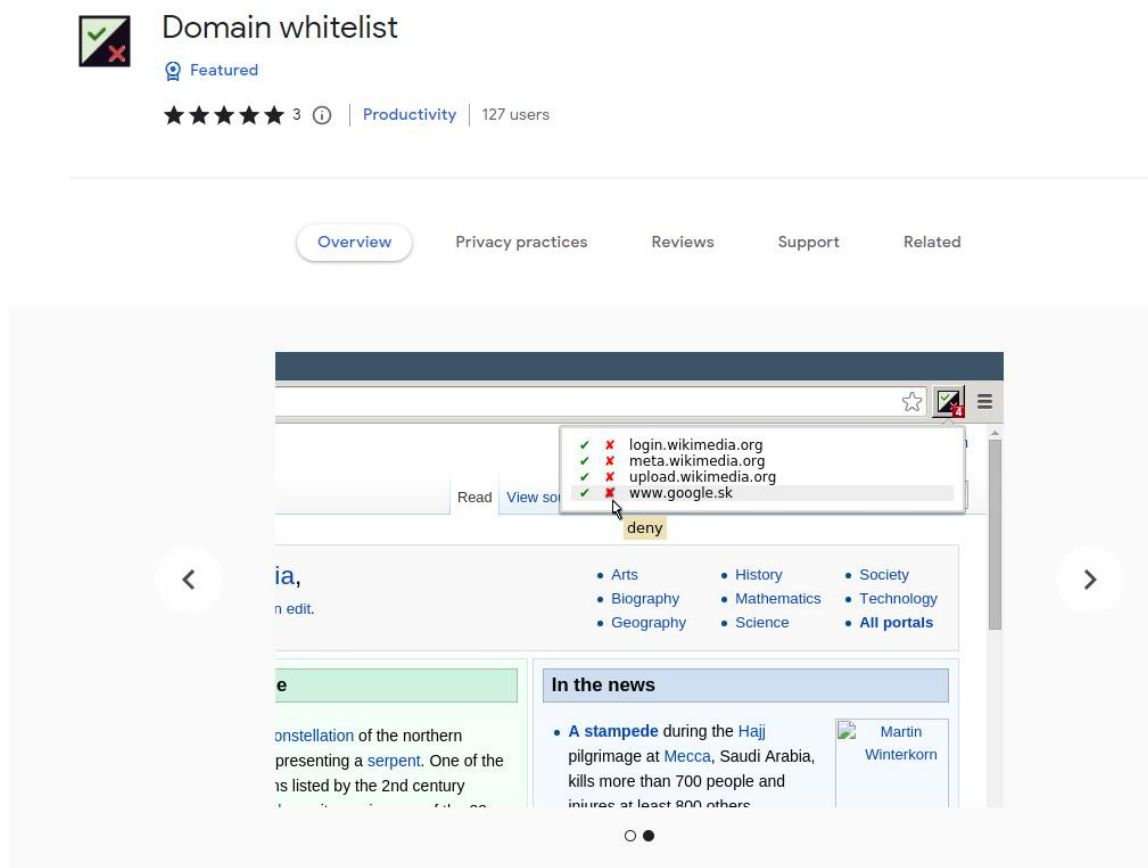


Image 4. Source: <https://chrome.google.com/webstore/detail/domain-whitelist/pdfmaiycdceohdpcbfclfdidiobpfpdkda?hl=en>



### 2.2.5. Logically

It is a browser extension and mobile application with which you verify facts and images. It has an automatic search assistant function, but also relies on human fact-checkers. The tool monitors more than one million domains and social media platforms in real time. It uses the collected data to assess the veracity of information appearing online.

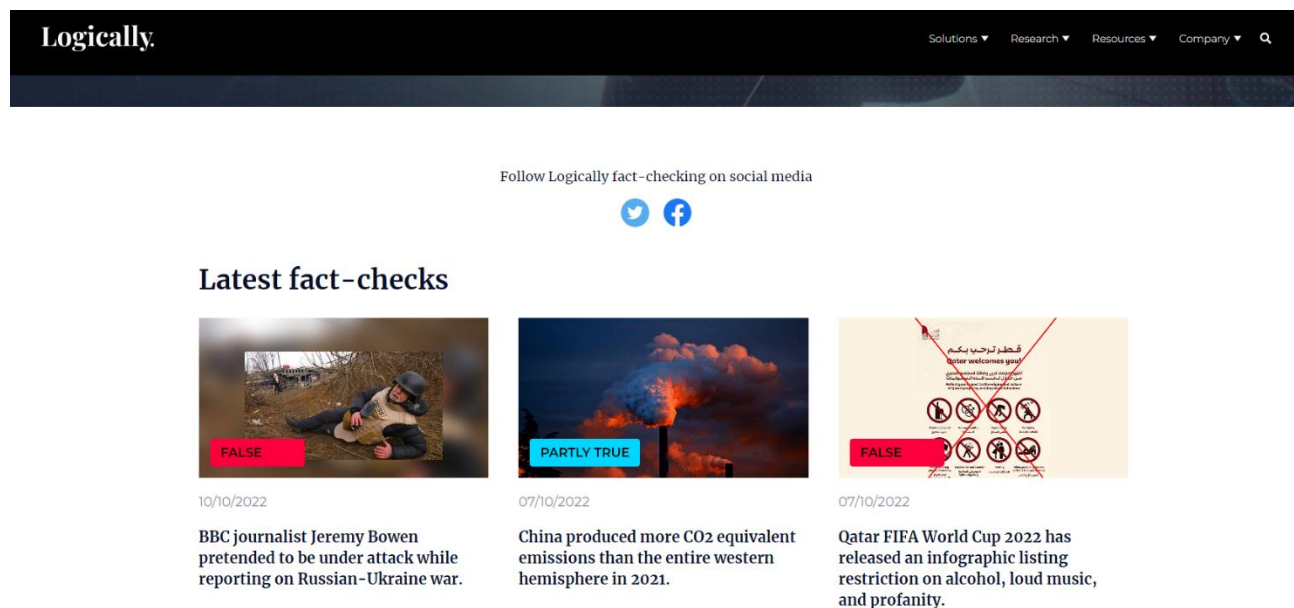


Image 5. Source <https://www.logically.ai/fact-check>



## 2.2.6. MediaBias Ratings

This is a platform with the help of which you can identify questionable news sources and those that appear to you to be conspiratorial. The platform has more than 5 000 media and journalist sources in its database, and is expanding every day. You can check the source by entering the name or website address.

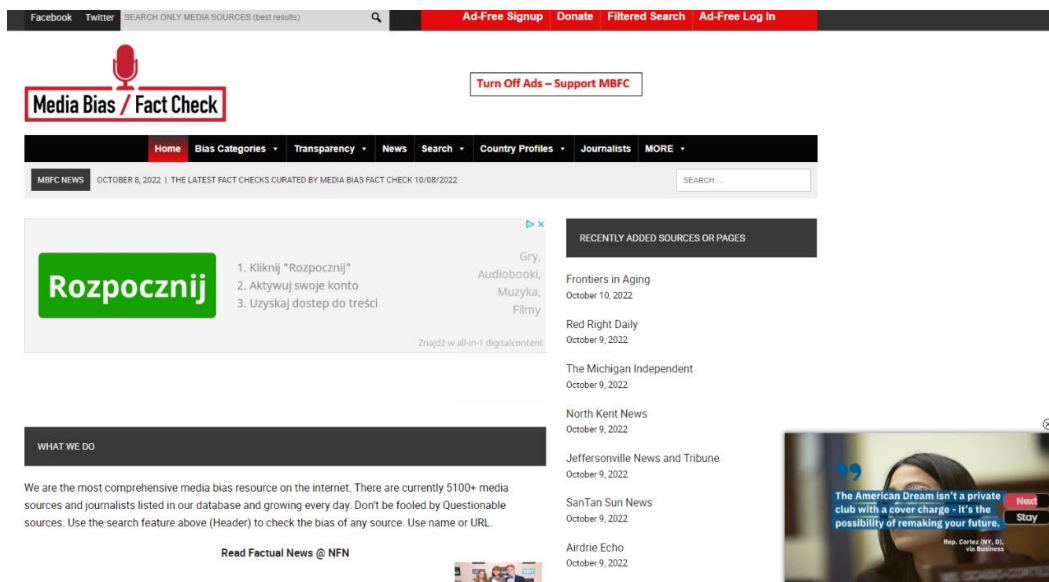


Image 6. Source: <https://mediabiasfactcheck.com/>



### 2.2.7. Snopes

The website was established in 1994, researching urban legends, hoaxes and folklore. It is now the oldest and largest platform for verifying information. Analysis of information is based on evidence, with links to sources so that you can search for information yourself and develop critical thinking by forming your own opinion on a given topic.

The Snopes rates the articles with marks such as: True, Mixture, Mostly False, False, Unproven, Outdated, Mispictured, Correct Attribution, Misattributed, Scan, and Legend.

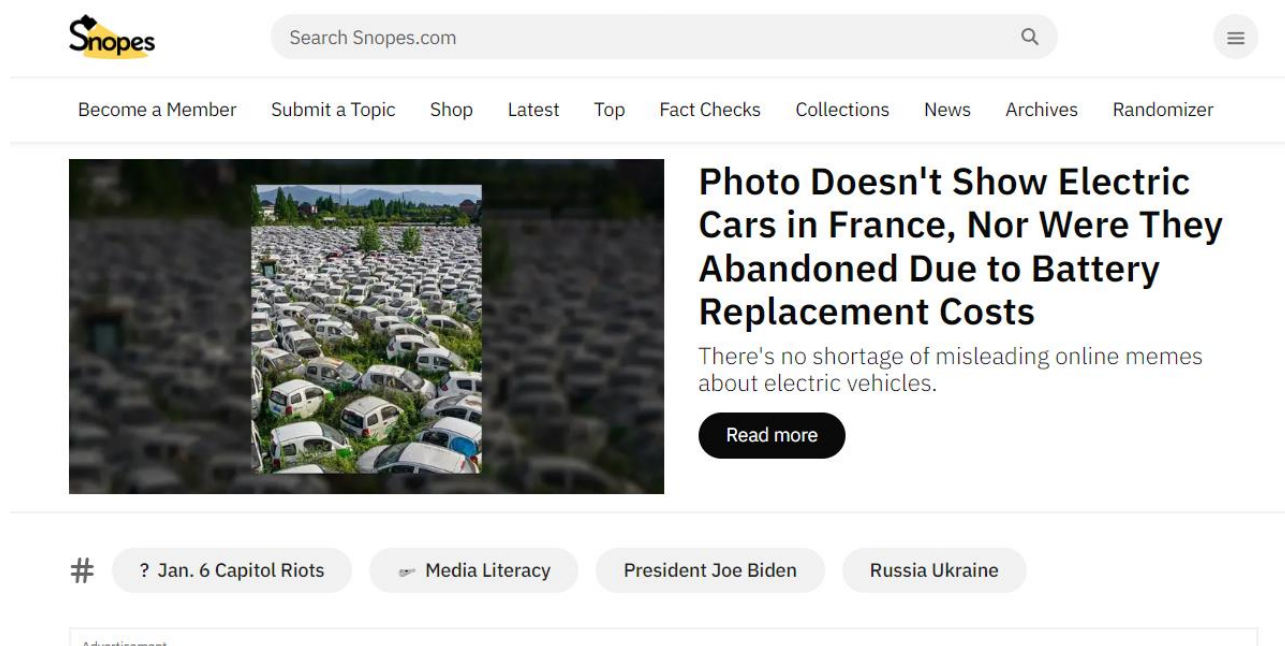


Image 7. Source: <https://www.snopes.com/>



### 2.2.8. FactCheck.org

This is a website mainly dedicated to American politics. The journalists who verify the material focus on the statements of politicians.

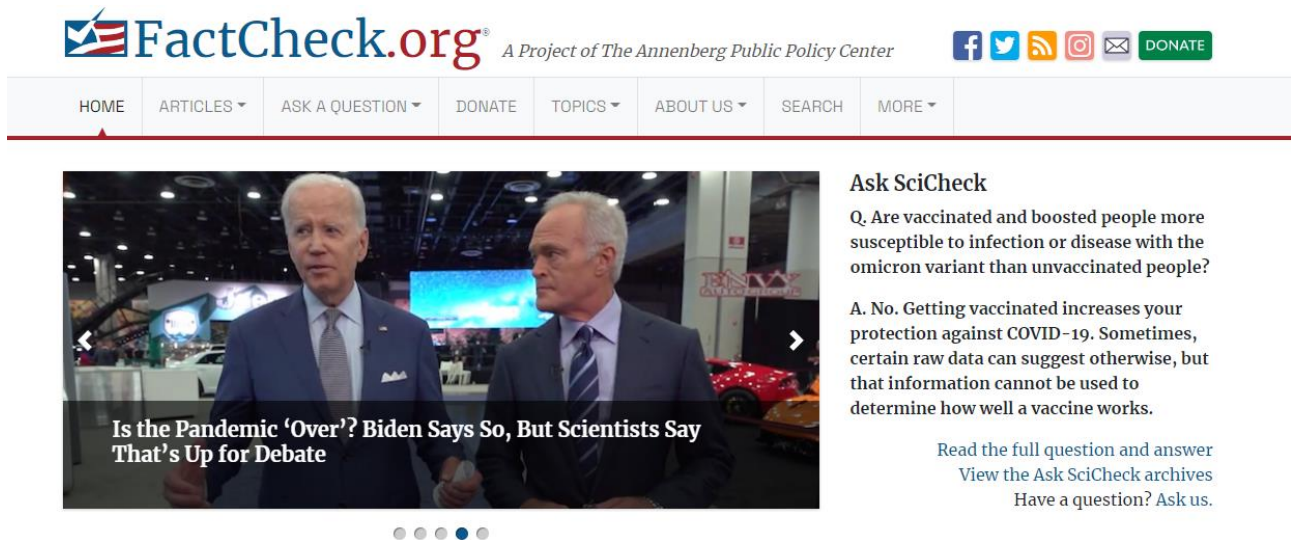


Image 8. Source: <https://www.factcheck.org/>



## 2.3. ONLINE TOOLS FOR VIDEOS AND IMAGES VERIFICATION

### 2.3.1. Google Reverse Image Search

This is probably the best known tool for verifying websites for similar images to the one you are interested in. It gives you the opportunity to check the original source of the image, as well as whether it has been used early on in another context, e.g. in another article. The tool is very intuitive, so really anyone can work with it. You can search for an image by uploading it from your computer, or by typing in the address of the image. On the Google Reverse Image Search website, you will also find a help tab with step-by-step information on how to get started.

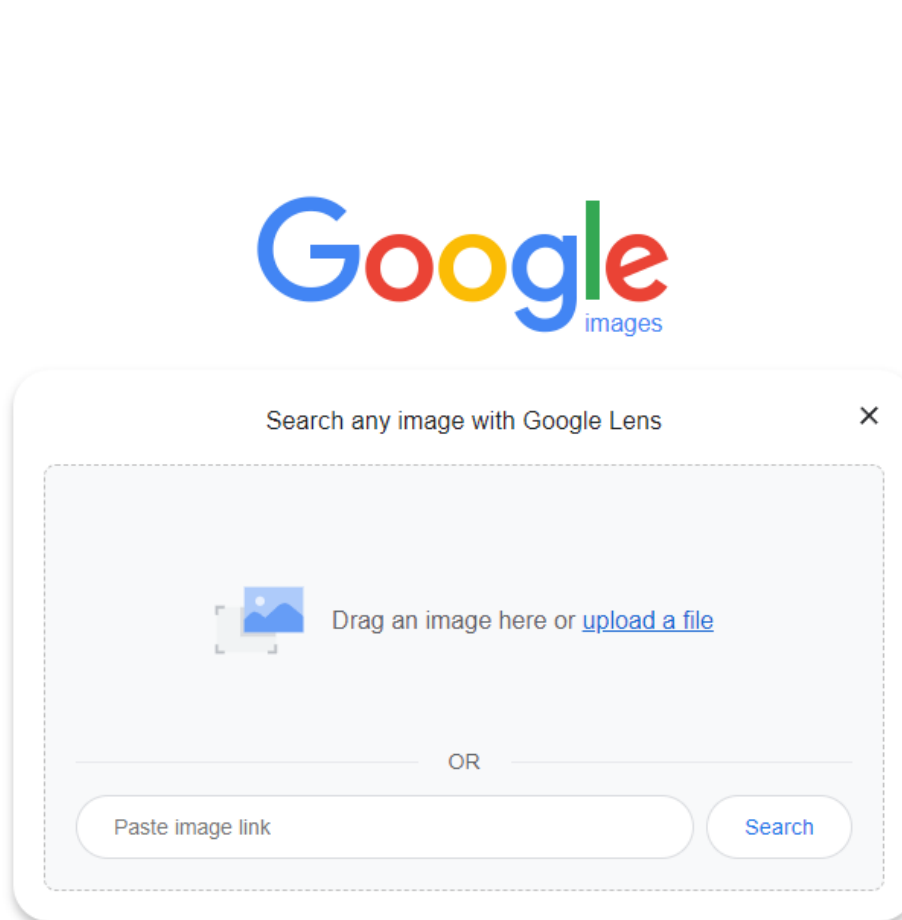


Image 9. Source: <https://www.google.com/imghp?hl=en>



### 2.3.2. TinEye

This tool works similarly to Google Reverse Image Search. You search by image by uploading it from your computer or by typing in a url. TinEye has over 56.4 billion images in its catalogue. It is worth noting that by using this tool your image is not saved or indexed - the search is private and secure. In addition, the tool has a results sorting option that makes it easy to compare the verified image with those displayed in the search results.

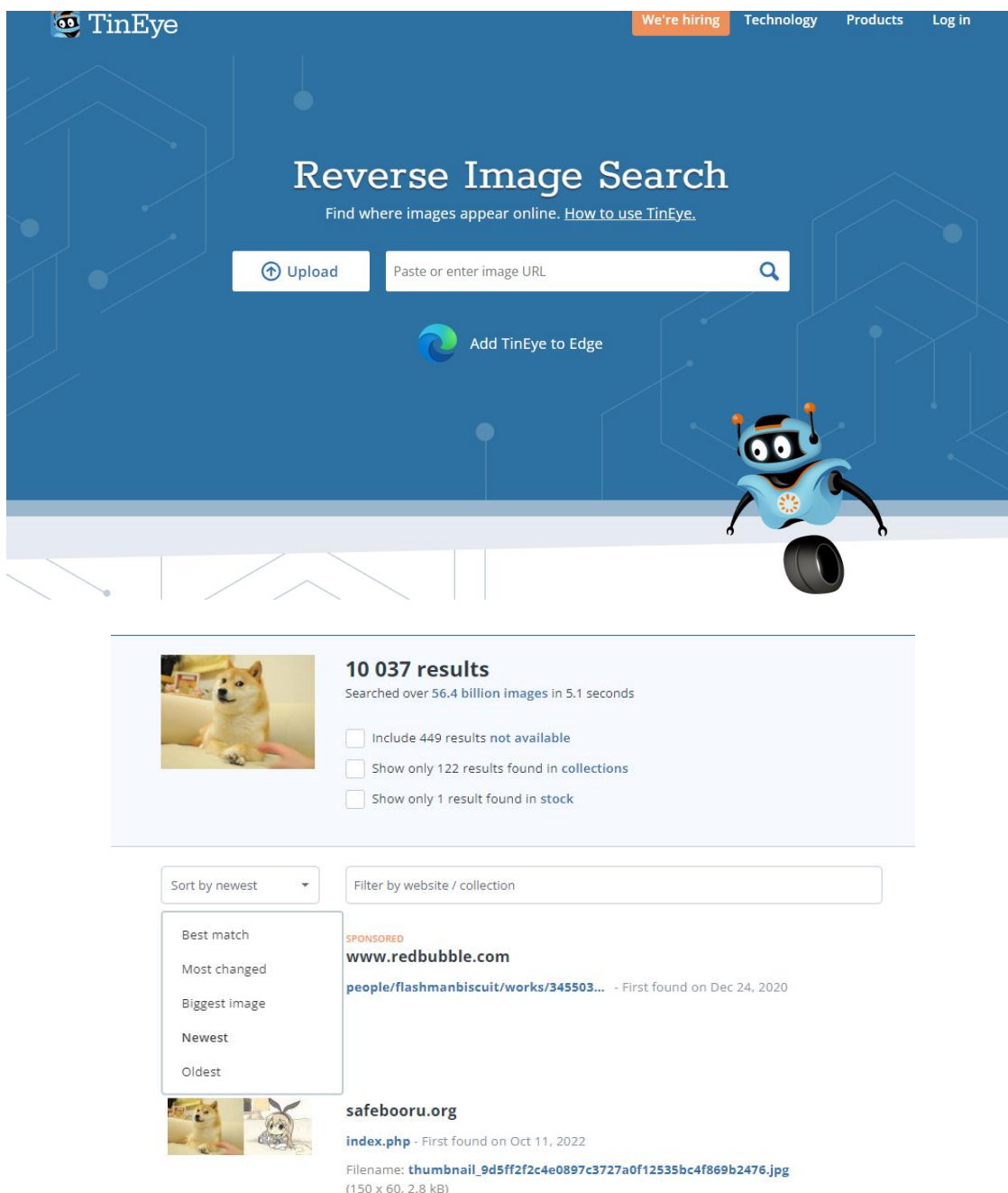


Image 10. Source: <https://tineye.com/>



### 2.3.3. Forensically

A digital image verification toolkit, that will allow you to spot inconsistencies in your images. It consists of tools such as:

- *Magnifier* – magnifies pixel size and contrast, allowing you to see hidden details in the image.
- *Clone detection* – the purpose of this tool is to highlight similar regions within an image, which is an indicator of whether the image has been manipulated using the cloning tool.
- *Error Level Analysis* - this tool shows that regions in the image that are darker or lighter may have been manipulated.
- *Noise Analysis* - works best on images of high quality and is useful for verifying image manipulations such as airbrushing, deformations, warping and cloning with perspective correction.
- *Level sweep* – it magnifies the contrast of the brightness levels, making visible the edges that were introduced when the content was copied.
- *Luminance gradient* – it analyses the brightness level of different areas of the photo. A photo whose parts differ in colour but are at similar angles to the light source and lighting may have been manipulated. This tool is also used to check the edges, which should have similar gradients. However, if the gradients on one edge differ from the others, this also indicates manipulation.
- *PCA* - analyses the main components in the image, providing a different angle of view of the image data, which in turn makes it easier to see any changes the image may have undergone.
- *Meta Data* - displays hidden image metadata.
- *Geo Tags* - indicates the GPS location where the photo was taken.
- *Thumbnail Analysis* - shows a preview of the hidden image inside the original one, if one exists.
- *JPEG Analysis* - allows extraction of metadata from JPEG files.

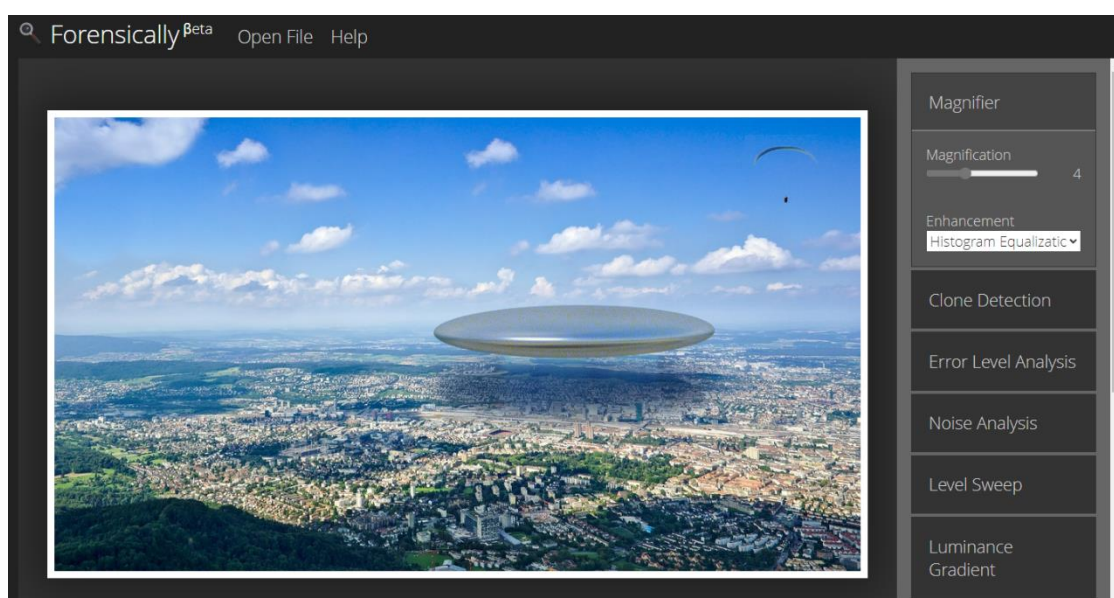


Image 11. Source: <https://29a.ch/photo-forensics/#forensic-magnifier>



#### 2.3.4. InVID

A plug-in for the Chrome browser that allows you to verify videos from Facebook, Twitter and Youtube. To do this, simply type in the address of the video. The tool will analyse the video and provide you with the metadata it contains, such as the locations in it or when the video was uploaded. Importantly, with InVID you are able to segment the video into frames so that it can be searched by image verification tools such as Google, TinEye.

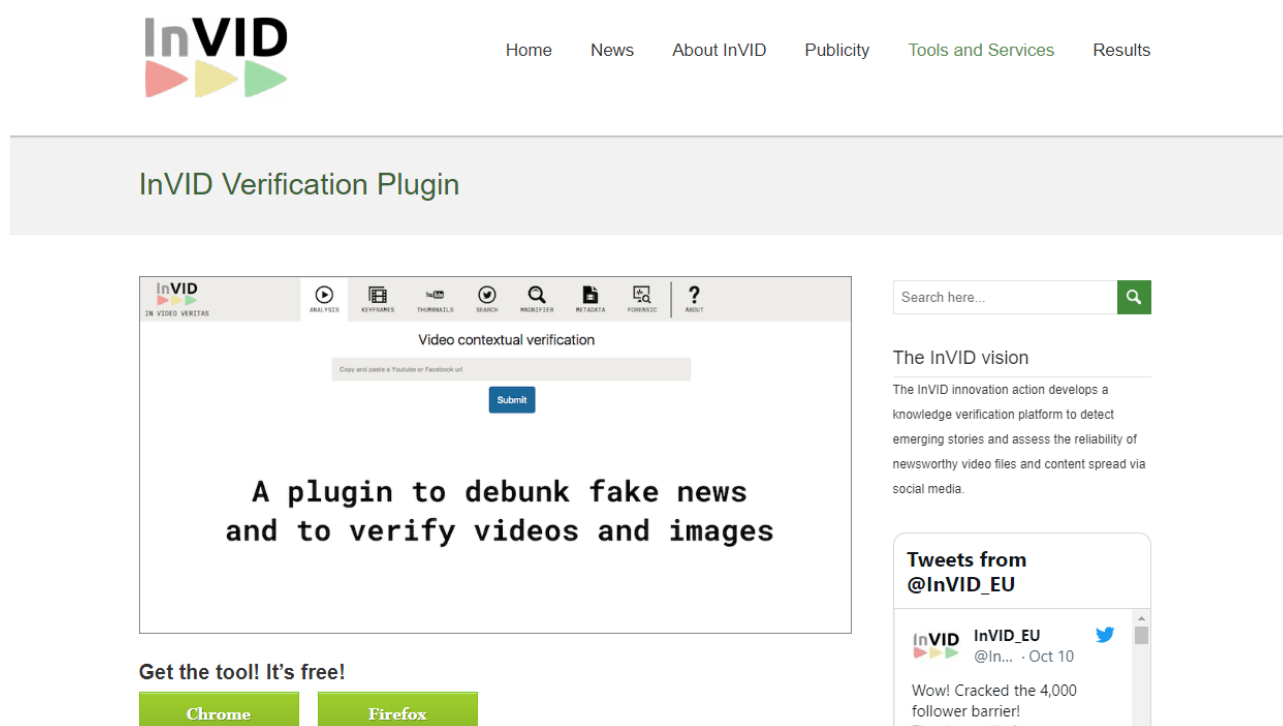


Image 12. Source: <https://www.invid-project.eu/tools-and-services/invid-verification-plugin/>



## 2.4. ONLINE TOOLS FOR SOCIAL MEDIA

### 2.4.1. Social Fixer for Facebook

This is a tool created for the Facebook page. All you have to do is download and install the Social Fixer and it plugs into your browser. It has many features that will make using the social network more user-friendly. You can choose the ones you think you need most. Below are some of them:

Filter your news feed - a filtering capability that creates rules that process the posts in your feed. You decide how you want your feed to look, with the ability to group posts into categories. You can hide stories by keyword, author or application. However, if you don't know how to create filters, nothing lost because the tool has ready-made ones that you can add with a single click. One such filter, for example, is to hide adverts.

Hide the posts you have read - another feature is the ability to hide posts you have already read. You simply mark them as read and next time, they will not appear in your feed.

Hide parts of the page you do not want to see - by selecting this interface from the menu, your page will display with marked areas that you can hide forever. Simply click on the ones you want to hide. You can, of course, also return to the settings and re-enable the selected section for display.

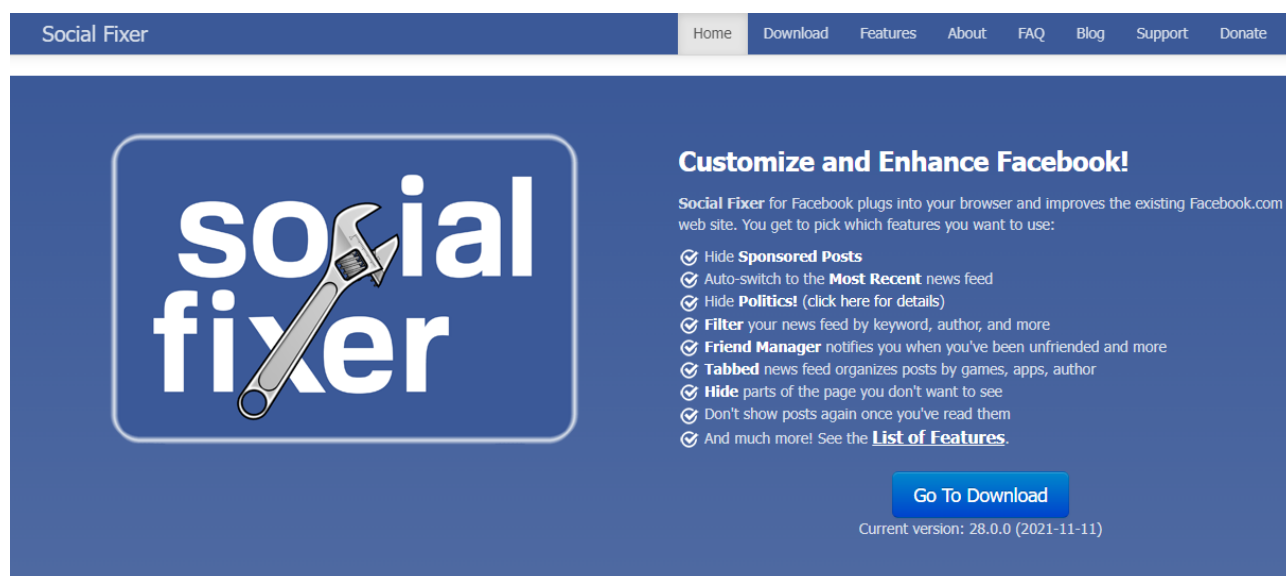


Image 13. Source: <https://socialfixer.com/index.html>



### 2.4.2. Hoaxy

This is a tool dedicated to Twitter platform. It is a tool that illustrates the spread of articles on the web. It searches for information going back to 2016. It follows shared links to news stories that come from low credibility sources and also from independent fact-checking organisations. Below you will find a tutorial how it works.

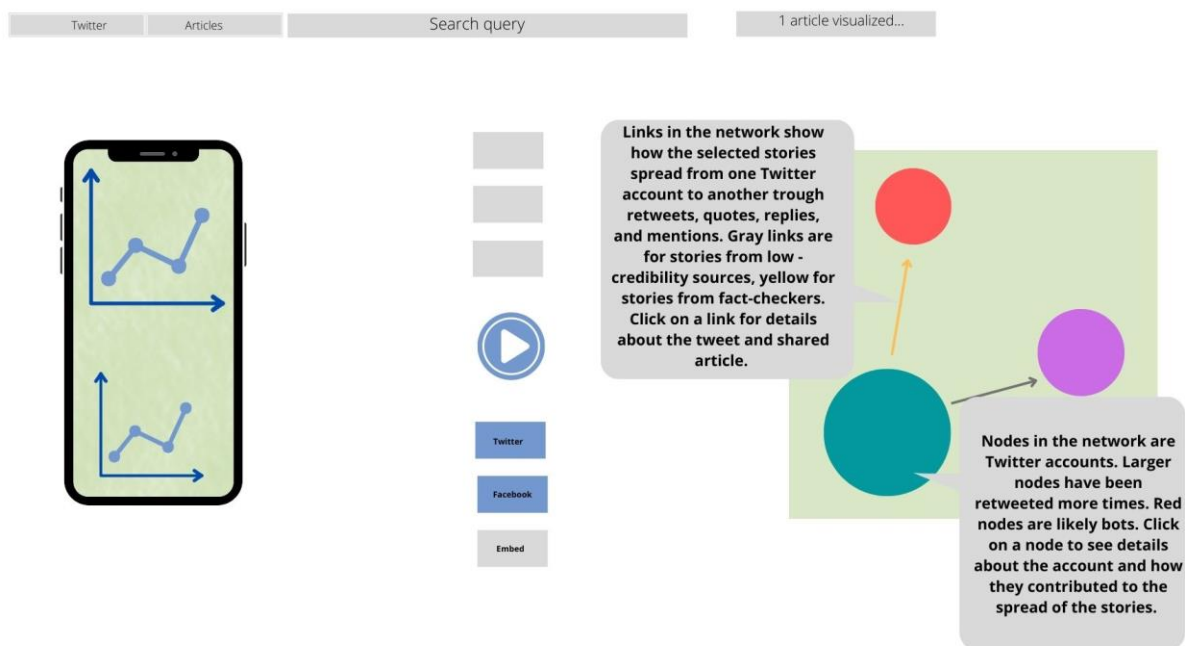


Image 14. Source: Developed by CWEP on the basis of information from the website

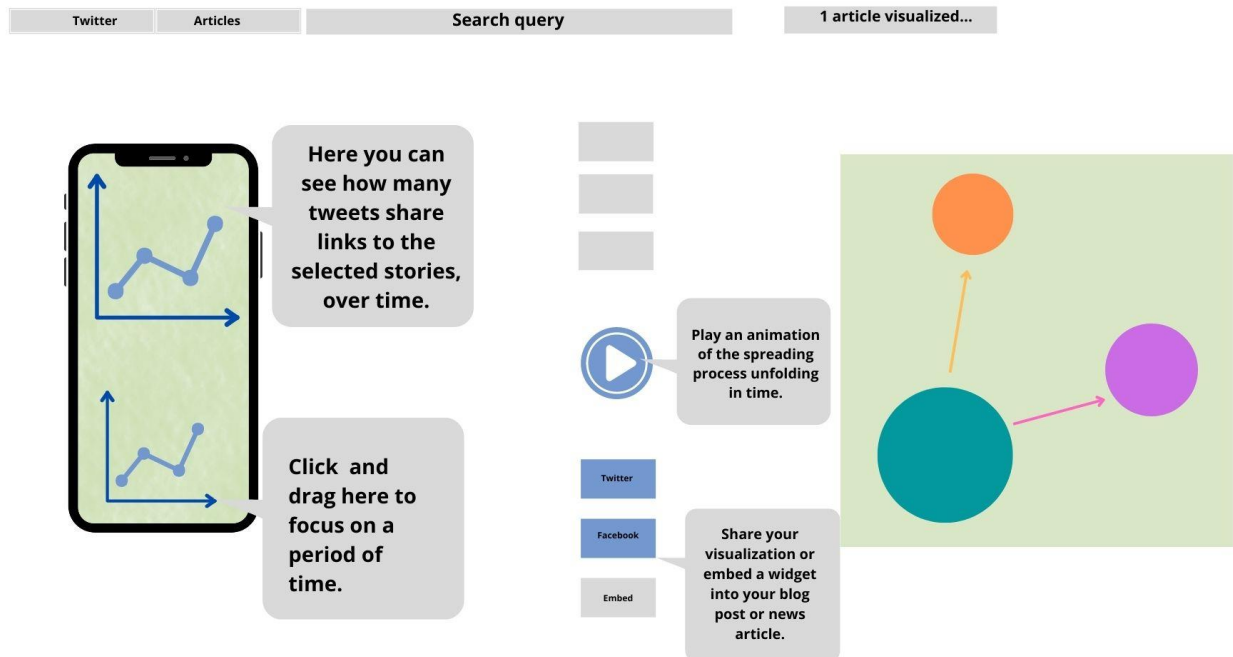


Image 15. Source: Developed by CWEP on the basis of information from the website <https://hoaxy.osome.iu.edu/>

The interface includes a top navigation bar with 'HOAXY', 'Help', 'Software', 'OSoMe', and a Twitter icon. The main area features the HOAXY beta logo and the text 'Visualize the spread of information on Twitter'. Below this are search options: 'Live Search' (Any Twitter content from the past 7 days) and 'Import Data' (Upload a CSV or JSON file containing Tweet information). A search bar contains the text 'Example: vaccines'. Below the search bar are radio buttons for 'Show: Recent', 'Popular', and 'Mixed' (selected). A 'Language: Any' dropdown menu is also present. A 'Search' button is at the bottom.

HOAXY<sup>®</sup> beta

Visualize the spread of information on Twitter

☒ Live Search Any Twitter content from the past 7 days ⓘ

☐ Import Data Upload a CSV or JSON file containing Tweet information ⓘ

Example: vaccines

Language: Any

Show: ☐ Recent ☐ Popular ☒ Mixed

Search

Image 16. Source: <https://hoaxy.osome.iu.edu/>



### 2.4.3. TwitterTrails

It is a tool that aims to combat misinformation through the use of an algorithm that analyses the spread of stories and the reaction of users to the story. To date, 627 stories have been collected and analysed using Twitter Trails.

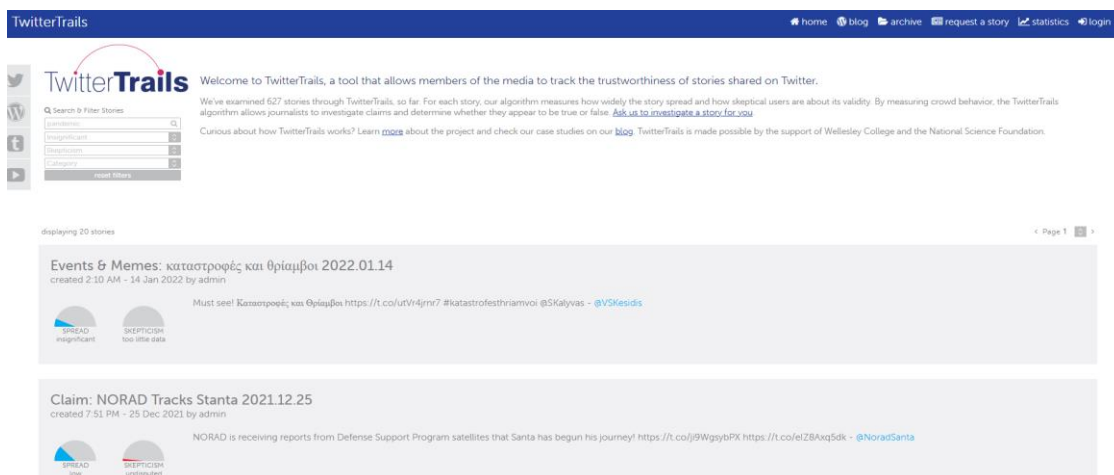


Image 17. Source: <http://twittertrails.com/>



#### 2.4.4. BobSentinel

A platform for verifying Twitter accounts. It uses machine learning, classifying accounts with up to 95% accuracy. Bot Sentinel detects so-called 'bots' by analysing tweets that are deemed inappropriate by Twitter rules. Accounts are rated on a scale from 0% to 100%. The higher an account's rating, the more likely it is that the account is involved in spreading fake news designed to cause division and chaos.

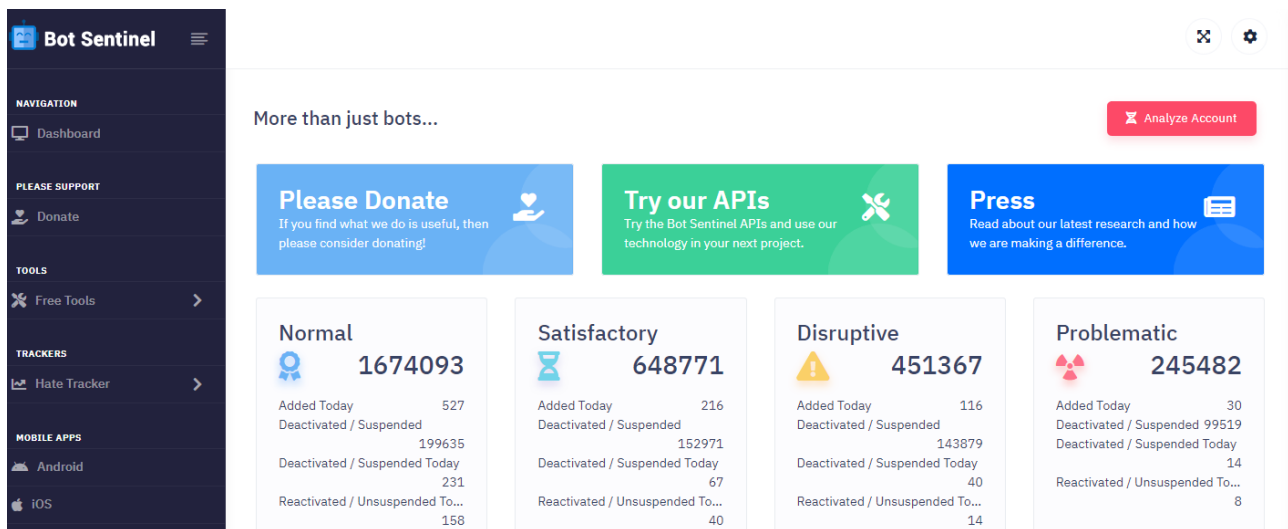


Image 18. Source: <https://botsentinel.com/>



## 2.5. ONLINE TRAINING TOOLS TO DEVELOP SKILLS IN RECOGNISING FAKE NEWS.

### 2.5.1. Factitious

With this tool you can improve the ability to recognise false information in the form of an educational game. The game is based on three steps:

1. Read an article
2. Mark the X if you think it is False
3. Mark the V if you think it is True

You can check the source of article by clicking on it. The Factitious game consists of three levels of difficulty: *easy*, *medium* and *hard*.

Start with the easiest one and collect points to move on to the next level!

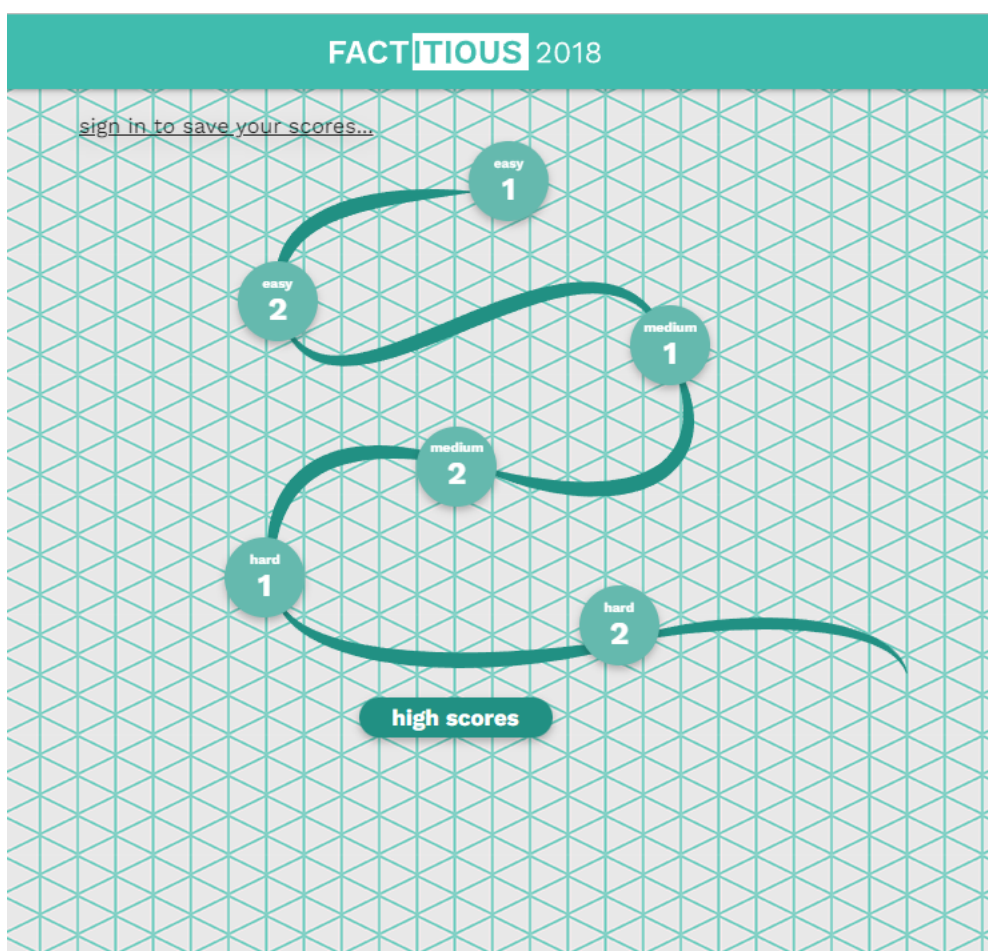


Image 19. Source: <http://factitious.augamestudio.com/#/>



### 2.5.2. Bad News

The game is about gaining as much audience as possible while building the false credibility of a news service.

It is a game to make you aware of the techniques used to manipulate and spread false information. By using this tool, you will become more resistant to false information encountered on social media and know that it is not worth spreading to your friends. You will also increase your confidence in recognising manipulation techniques. The game is designed for users aged 14 and over.

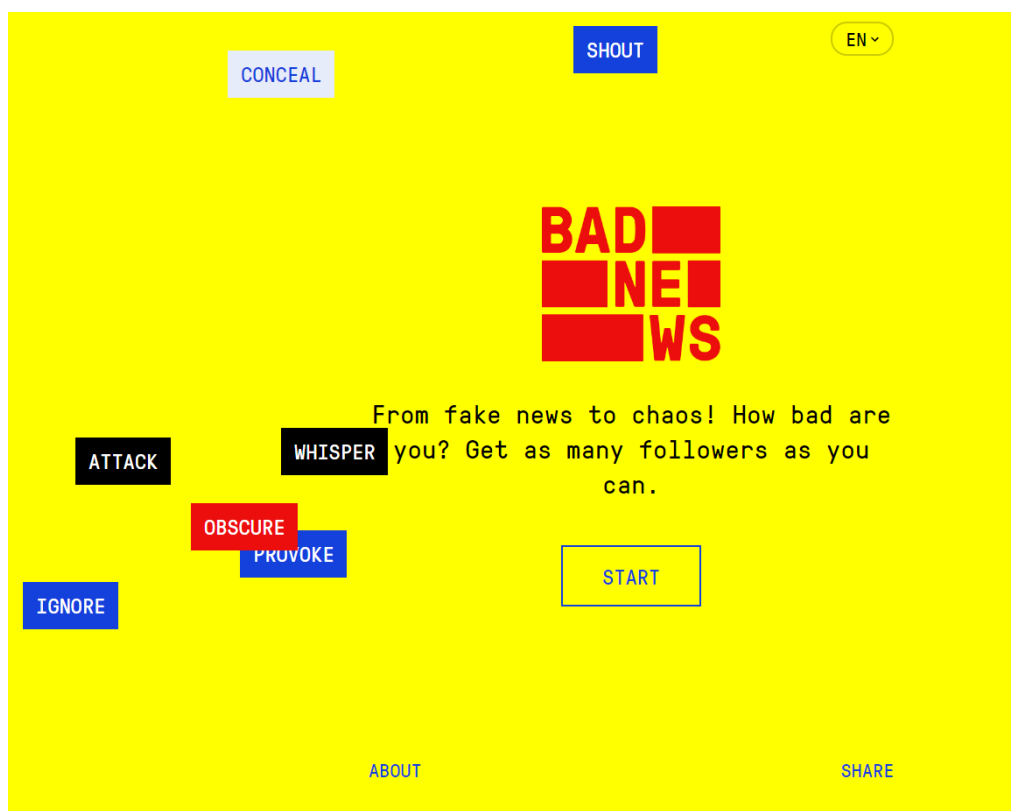


Image 20. Source: <https://www.getbadnews.com/en/intro>



### 3. FURTHER READING

Here we provide extra resources you can use to deepen the knowledge related to the Module:

#### Videos

<https://www.youtube.com/watch?v=yBU2sDIUbp8>

<https://www.youtube.com/watch?v=hB6qjlxKItA>

<https://www.youtube.com/watch?v=tRZ-N3OwUs>

<https://www.youtube.com/watch?v=wJG7kFmS0FE>

<https://www.youtube.com/watch?v=nmgbFODPiBY>

### 4. BIBLIOGRAPHY

<https://adblockplus.org/en/>

<https://www.thefactual.com/>

<https://chrome.google.com/webstore/detail/websiteswhitelist/bmlipnlhfpjgmafjlnnmdkl djmehahnm?hl=en>

<https://chrome.google.com/webstore/detail/domainwhitelist/pdfmaijcdceohdpbclfdidi obpfpdkda?hl=en>

<https://www.logically.ai/fact-check>

<https://mediabiasfactcheck.com/>

<https://www.snopes.com/>

<https://www.factcheck.org/>

<https://www.google.com/imghp?hl=en>

<https://tineye.com/>

<https://29a.ch/photo-forensics/#forensic-magnifier>

<https://www.invid-project.eu/tools-and-services/invid-verification-plugin/>

<https://socialfixer.com/index.html>

<https://hoaxy.osome.iu.edu/>

<http://twittertrails.com/>



<http://factitious.augamestudio.com/#/>

<https://www.getbadnews.com/en/intro>

<https://whatsnewinpublishing.com/fighting-fake-news-5-powerful-and-free-tools-for-journalists/>

<https://www.rand.org/research/projects/truth-decay/fighting-disinformation/search.html>

<https://thetrustedweb.org/ai-powered-tools-for-fighting-fake-news/>



# MODULE 7: #fake news – analysing popular social media news



## 1. AIM AND LEARNING OBJECTIVES

### 1.1. AIM OF THE MODULE

The module aims to support people with fewer opportunities (low-skilled adults, unemployed people, adults at poverty risks) to **identify** and **analyse popular fake news** circulating via **social platforms** and the **Internet**. In order to facilitate adults to achieve the module's objective, an overview on the different types of social media, as well as the benefits and risks from their use are presented.

Moreover, the module is focused on the main fields where fake news circulate on social networks and platforms providing some examples of popular fake news.

Finally, the module intends to analyse **how to spot fake news on social media** providing practical tips and explaining how to improve the needed skills to identify popular fake news.

### 1.2. LEARNING OBJECTIVES

At the end of the module, the learner should be able to:

- be aware of the social media benefits and risks;
- identify whether the news circulating on social media are true or fake;
- analyse popular social media fake news;
- understand how to deal with popular fake news on social media.

## 2. LEARNING CONTENT

Social media as a news source is the use of online social media platforms rather than moreover traditional media platforms to obtain news. Just as television turned people who listened to media content into watchers of media content in the period 1950s to 1980s, the emergence of social media has created a generation of media content creators.

As a participatory platform that allows for user-generated content and sharing content within one's own virtual network, using social media as a news source allows users to engage with news in a variety of ways, including:

- Consume news
- Discover news
- Share or repost news
- Post their own photos, videos, or reports of news



- Comment on news

Using social media as a news source has become an increasingly more popular way for old and young adults alike to obtain information. There are ways that social media positively affects the world of news and journalism but it is important to acknowledge that there are also ways social media negatively affect the news that people consume such as fake news, biased news, and disturbing content.

For that reason, it is essential to be able to identify the nature of the news circulating on the social media and, in case you come across a fake news, understand how to deal with it.

## 2.1. SOCIAL MEDIA NEWS: IS IT TRUE OR FAKE?

Before learning how to distinguish real news from fake ones circulating on social media, it is worth spending few words on the potential, opportunities and risks of social media use as well as on the role of the news in the different types of social media.

### 2.1.1. Potential, opportunities and risks of social media use

Based on the best known and accredited definition provided by Andreas Kaplan and Michael Haenlein, social media is “*a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content*”<sup>9</sup>.

We can simplify the **concept** saying that social media are interactive technologies that facilitate the creation and sharing of information, ideas, interests, and other forms of expression through virtual communities and networks.

The main characteristic is therefore their **horizontality** in the creation and spread of content, which stands in contrast to the verticality of classic mass media. Unlike traditional media, indeed, in social media all involved people can create content and spread it being on the same level.

The widespread use of social media has brought about changes not only in the roles of communication, but also in the ways of communication: it is no longer a unilateral message of 'one to many' type, but a multidirectional message of 'many to many' or 'peer to peer' type. The 'monologue' becomes a 'dialogue' between users and, therefore, the sender and receiver switch in a continuous flow of roles, without hierarchies.

We can say that the different types of social media have the following common **characteristics**:

1. interactive Web 2.0 Internet-based applications

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<sup>9</sup> “Users of the world, unite! The challenges and opportunities of Social Media”, 2010, Andreas Kaplan and Michael Haenlein.



2. User-generated content, such as text posts or comments, digital photos or videos, and data generated through all online interactions.
3. Users create service-specific profiles for the website or app that are designed and maintained by the social media organization.
4. development of online social networks by connecting a user's profile with those of other individuals or groups.

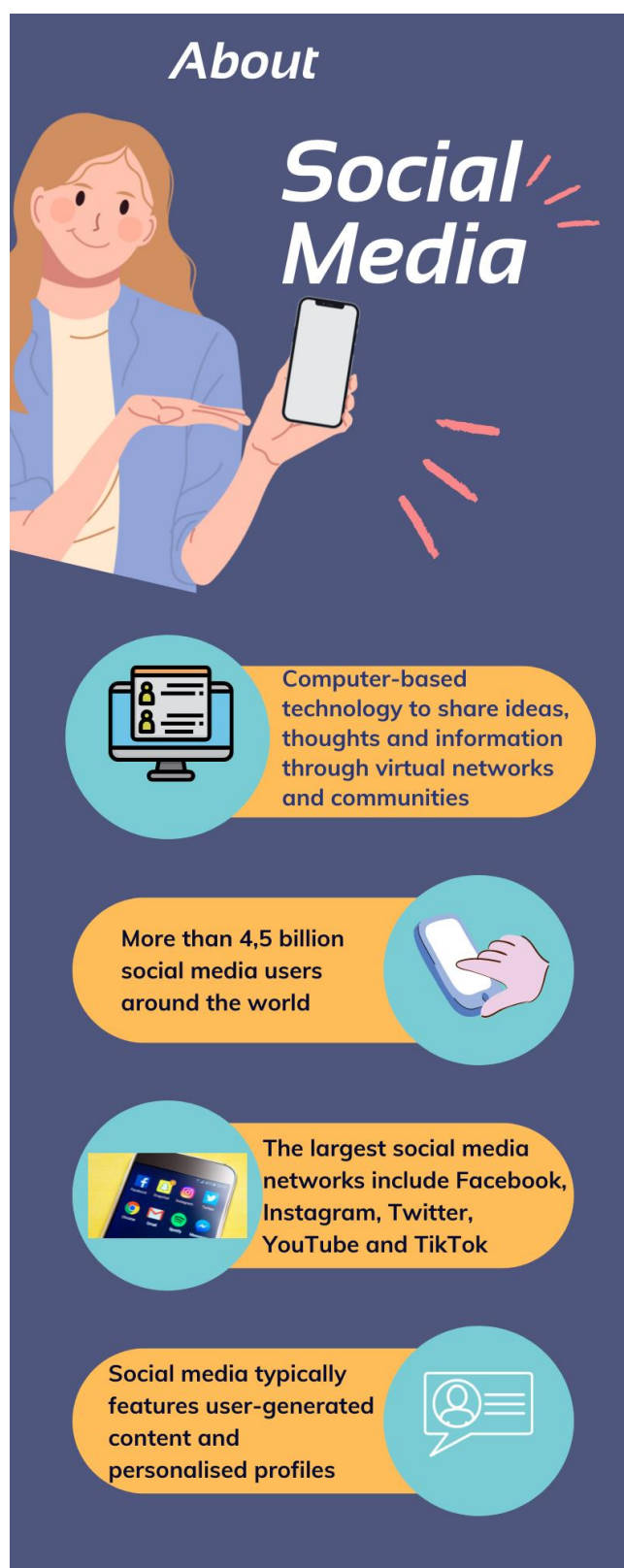


Image 1 - Created by TUCEP



Overall, we can summarise the figures for the most popular social media websites as of January 2022<sup>10</sup> as follows:

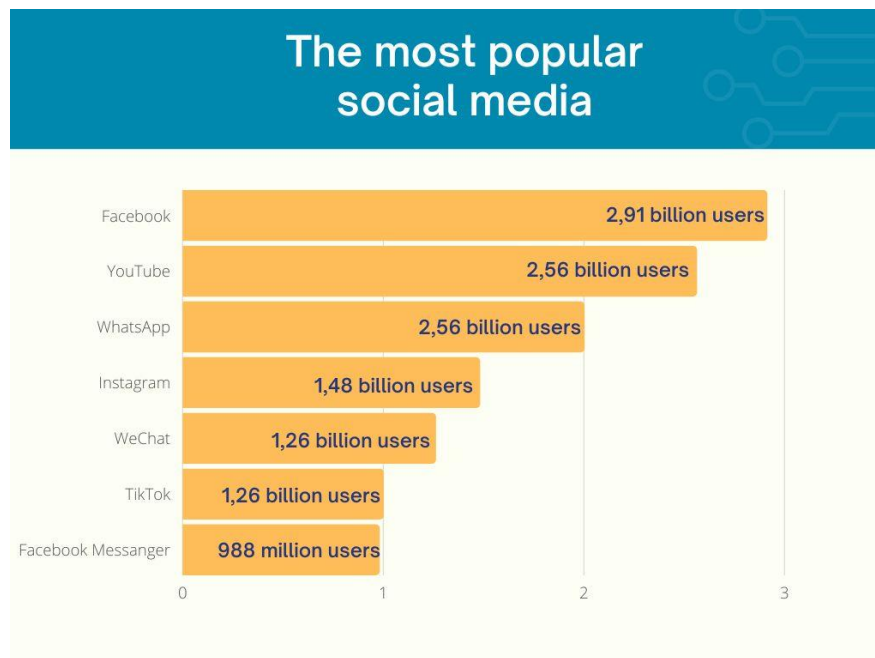


Image 2 - Created by TUCEP

<sup>10</sup> "Most popular social networks worldwide as of January 2022, ranked by number of monthly active users" - <https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>

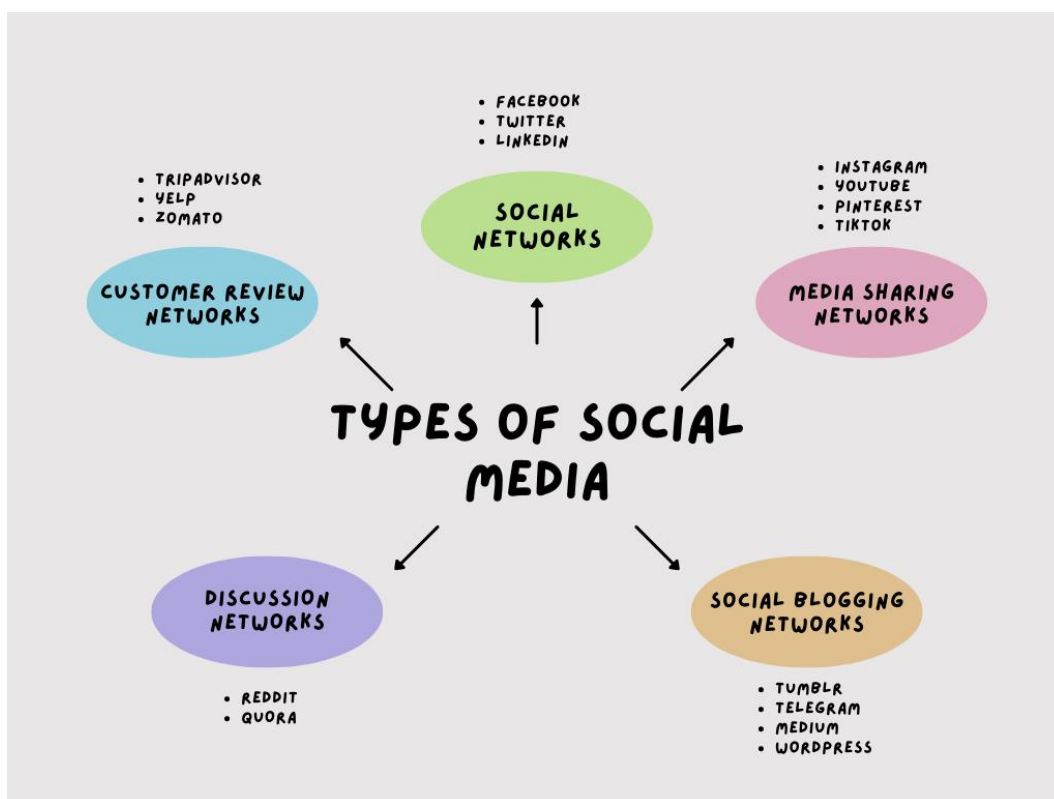


Image 3 - Created by TUCEP

A breakdown of social media can be made according to the services they offer. The most common are listed below with some examples:

- **SOCIAL NETWORKS**

The aim is sharing ideas, opinions and contents with other users. Facebook and Twitter are the best examples as well as LinkedIn, although it is for more professional use and therefore has features that make it more complicated to use. Below, a short description of the most common social networks is provided:

- **FACEBOOK:** many people use this platform to connect with family, friends and brands. You can share status updates, photos, videos, links to content and polls.
- **TWITTER:** similarly to Facebook, this platform is used to post photos, videos, links, polls and more promoting a concise and direct communication. The most relevant difference is represented by the size of the message: unlike other social networks, you can use only 280 characters for each message.
- **LINKEDIN:** it is a great place for professionals to connect and building professional relationships, sharing information, finding new jobs, and recruiting new candidates.



### ○ MEDIA SHARING NETWORKS

This type of social media is used by people to **share multimedia contents** such as images, videos and other content with one another. The best examples of media networks are:

- **INSTAGRAM:** is a free and online multimedia-sharing application where people can upload photos and videos sharing them with a select group of friends. This application allows friends to interact by posting comments and likes to the photo or videos shared.
- **YOUTUBE:** is the second-largest search engine in the world as well as one of the most used to search and watch videos covering a wide range of topics.
- **PINTEREST:** is a visually-focused site for sharing creative ideas and products.
- **TIKTOK:** is a social media platform for creating, sharing and discovering videos up to 60 seconds long. It is a platform used especially by young people to express themselves through singing, dancing, comedy, and lip-syncing.

### ○ SOCIAL BLOGGING NETWORKS

These social networks allow people to **share information** about **news, events, and timely or relevant topics**. They also address themes that matter to their target audience. Social blogs let you share information in real-time, a feature they have in common with social media. Social blogging networks are one of the more unique types of social media because they require creating constant content to publish and a regular user' involvement requiring more work than other social platforms.

Two examples of social blogging networks are:

- **TUMBLR:** is a virtual blogging and microblogging tool that allows users share short text content with multimedia elements such as links, images, quotations, drawings, etc.
- **TELEGRAM:** Besides a messaging app, Telegram is one of the emerging tools for creating public or private channels where live audio/video and text on a wide range of topics can be broadcast.
- **MEDIUM:** is a blogging platform created by the co-founders of Twitter, with the same structure but where ideas and stories are shared without the limit of characters and not only for friends, even though the access is only through invitation.
- **WORDPRESS:** is an open-source content management system that makes easy to create and manage a website or a blog covering a wide range of topics used by whoever wants to keep the online presence in the web sharing news and information.

### ○ DISCUSSION NETWORKS

Through these social platforms people worldwide have the opportunity to discuss news, information, and opinions about a wide range of topics or problems from finance to politics to funny news. People see content discussions and join them to



see what people are commenting or saying. The best known examples of discussion networks are:

- **REDDIT:** is a social news website and forum where content is socially cared and promoted by site members through voting. Indeed, the name comes from the words “I read it” because it is assumed that people read the opinions, thoughts, information and experiences posted in and provide their feedback participating in the discussion.
- **QUORA:** is a global online platform for asking questions and providing answers related to a wide range of topics. The content is generated by users as the people using this platform create, edit and organize the answers.

#### ○ **CUSTOMER REVIEW NETWORKS:**

Through this category of social media, users can find out, share and review different information about a variety of products, **services or brands**. When a business has positive reviews on these networks, their claims turn more credible because reviews on these networks means the social proof. These networks offer a place to users for reviewing different kinds of products and services that they have used. The best review networks are TripAdvisor, Yelp or Zomato.

In a nutshell, a summary of the variety of social media categorised *by purpose* is presented in the table below:

PURPOSE	TYPE OF SOCIAL MEDIA	EXAMPLES
Debate and discuss a topic and share opinions on Internet-related topics	<b>Discussion forums</b>	<b>Reddit</b> <b>Quora</b>
Watch videos	<b>Video platforms</b>	<b>YouTube</b> <b>TikTok</b> <b>Facebook</b> <b>Instagram stories and reels</b>
Forming communities	<b>Community platforms</b>	<b>Facebook groups</b> <b>Slack</b>
Sharing short messages both privately and public lasting 24 h	<b>Disappearing content</b>	<b>Instagram stories</b> <b>Snapchat</b> <b>Facebook stories</b>
Listen to live talks about several topics	<b>Audio platforms</b>	<b>Twitter</b> <b>Spotify</b> <b>Clubhouse</b>
Broadcasting live videos organised either by a single person or in the form of	<b>Live streams</b>	<b>YouTube,</b> <b>Instagram live rooms</b> <b>Facebook live</b> <b>TikTok</b> <b>Twitch</b>



PURPOSE	TYPE OF SOCIAL MEDIA	EXAMPLES
conferences with numerous speakers		
Collaborating with professionals	<b>Business platforms</b>	<b>LinkedIn Twitter</b>
Seeking information and inspiration for a wide range of things (shopping, travel, sports, food, weather, etc.).	<b>Inspirational Platforms</b>	<b>Pinterest, YouTube Instagram Blogs</b>
Broadcasting news and information	<b>Informative platforms</b>	<b>Telegram</b>

### 2.1.2. What are the benefits from social media use?

It is undeniable that nowadays everyone is on some social media platform, regardless of age, gender, social and cultural background or education and employment status. Teenagers on TikTok, influencers, adults and small businesses on Instagram and Facebook, or professionals on LinkedIn: social media is the first option that comes to mind when looking for opportunities for connection as well as information in any field.

Generally, people use social media at personal level to keep in touch with friends and extended family. Some people use various social media applications to network career opportunities, find people across the globe with like-minded interests, and share their thoughts, feelings, insights, and emotions. Those who engage in these activities are part of a virtual social network.

Social media is also an indispensable tool for businesses that use the platforms to find and engage with customers, drive sales through advertising and promotion, assess consumer trends, and offer customer service or support.

Social media, if used intelligently, can bring many benefits. Being the best form of direct contact with the target audience, these platforms have all the credentials to improve anyone's life.



Image 4 - Created by TUCEP

Here are **some benefits** of using various social media intelligently:

- **Building relationships and staying connected.** Social media make it easy to find groups of like-minded people or make new friends. Finding a friendly community can help us feel valued and accepted. Social media is also an easy way to maintain existing relationships with family and friends who are far away from us, by sending messages, sharing photos, making phone calls or video calls to stay in touch. On social media, you can reach out to new connections and start developing relationships with them as well. This level of connectedness is a unique advantage of digital media.
- **Knowledge growth.** A variety of topics, old and new, are discussed in social media. Reading or participating in conversations can bring up important topics to pay attention to and to discuss with people you trust. In addition, social media gives us the opportunity to join sector-specific groups to participate in discussions, learn and grow.
- **Spreading news.** Social media is one of the fastest means of spreading news from all over the world. On the one hand this can be overwhelming, but on the other hand it keeps us informed about important events. Moreover, social media provides the opportunity for any person to quickly promote and spread the news of an event or happening both locally and globally.
- **Learning and education.** Social media is a great place for all people to find experts, professionals, tutorials and training programmes to learn new skills and knowledge as well as to improve your competences through the free online courses, content and webinars offered on the web. Many influencers openly share



their knowledge to help others grow. It is also an ideal space for companies to advertise their services and products.

- **Offering/receiving support.** Social media is a great tool to raise awareness for an important cause or to support others pursuing important projects of public interest. In the private sphere, social media is a tool to offer and receive support for work you are doing, such as starting a new business or sharing projects. It is also a means to find contacts in your field of interest by sharing your knowledge and skills and acquiring new ones.
- **Fostering soft skills like empathy.** When people share personal or troubling things online, there is an opportunity to show empathy by supporting, encouraging others and showing interest in what is happening to them through messages and comments. Furthermore, observing how others overcome difficult circumstances can be inspiring and help us to see things from a new perspective.
- **Finding your voice.** Social media give people of all ages the opportunity to develop a platform open to a wide audience to share information, news and opinions. This helps people build self-confidence, acquire new communication skills and quickly spread important and positive messages.

### 2.1.3. ...and the risks?

The high accessibility, speed of information spreading and low costs make social media the fastest and most easily accessible means of communication and information for everyone. The arrival of new technologies for everyone and of an accessible Internet network, in fact, has transformed users from mere consumers of content to active producers of it: everyone can create new content that anyone can edit, share and distribute at will.

This is one of the main reasons why social media can become easy prey to fake news created and circulated by unscrupulous users.

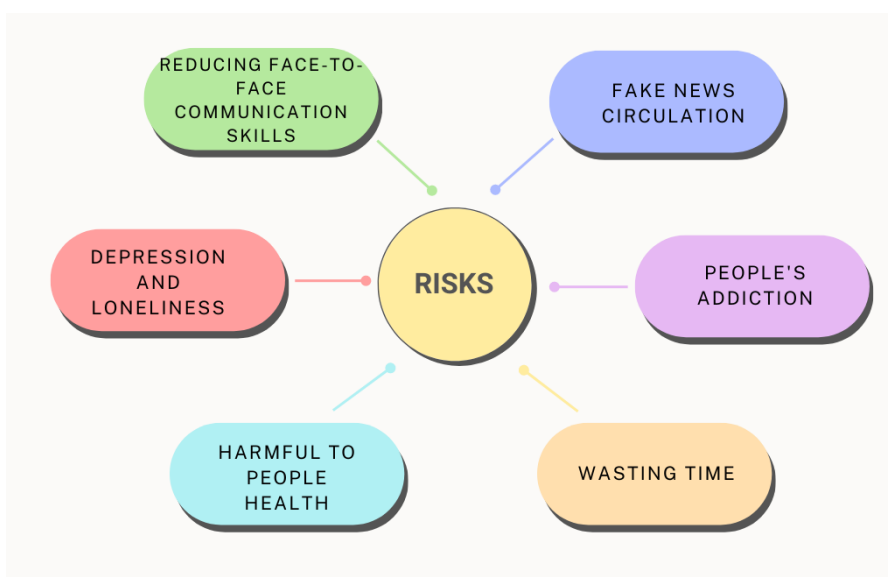


Image 5 - Created by TUCEP



While social media has its positive side, as explained above, there is also a negative side linked to several **risks**, as follows:

- **Reducing face-to-face communication skills.** As the majority of people use social media to communicate with others, One of the worst aspects is that it reduces the ability to communicate face to face. Everyone used social media to interact with others, and as a result, they gradually can damage their ability to interact in person, ability that includes a set of other personal skills. A lot of experiences show that people who communicated over social media did not learn how to interact face to face and, consequently, the physical communication became extremely difficult for them. Based on scientific studies, this can increase the chances of being affected by bipolar and other mental sufferings.
- **Fake news.** Social media plays a significant role in the spreading of fake news as people easily create false social media posts and share them with others worldwide, spreading them to groups. In addition, the lack of a verification system makes it even easier to produce fake news on several topics and post it on social media. Other people can also share and pass it on to other people and groups, spreading fake news around the globe.
- **People's addiction.** One of the worst aspects of social media is the ability to become addicted to it, and this represents a severe global risk of social media. Most individuals use social media so much that they become addicted to it. They are constantly browsing through their newsfeeds and contributing to them. Most individuals are constantly browsing through their newsfeeds developing a significant addiction to it, regardless their age. The introduction of social media into people's lives greatly promoted their exclusion from society and the natural world. Living like in a virtual bubble, many people take refuge in social media to avoid seeing what is happening in the real world around them, thinking they can escape the consequences.
- **Wasting time.** Many people use social media platforms for various reasons: to relax, for personal or professional purposes. However, this activity requires a certain amount of time, bearing in mind that when you start browsing or scrolling through social media, time passes so quickly that you do not realise it. Without demonising the use of social media, it is therefore clear that it would become so easy to waste valuable time on social media, time that could instead devote to more productive and healthy activities.
- **Harmful to people health.** Social media also damages people's health. The excessive use of social media platforms has been linked to a number of health problems in people. People become sedentary due to the constant use of social media platforms at all hours of the day and night. This encourages an increase in obesity, as more and more social media users prefer to spend time in front of mobile devices rather than walking outside or participating in physical activities and games. This causes a number of problems in their daily health routine and exposes them to various harmful disorders.
- **Depression and loneliness.** People who spend too much time on social media often become depressed and lonely. In fact, especially since the Covid-19 pandemic, social media has become the main tool for interpersonal



communication, fostering loneliness. Sometimes we believe we have a multitude of friends based on the followers we have on social media, only to discover that in reality we are very lonely.

Furthermore, the amount of time we spend in front of devices has a significant impact on our brains: it generates not only depression but also other symptoms of poor mental health, from anxiety and insomnia to chronic stress and lack of self-esteem.

#### 2.1.4. Social media and news

In order to be able to detect fake news in social media, it is important to know the meaning of '**news**' concept and to identify what can make it popular.

Potentially any event can be news and becomes news when it attracts the interest of the public: we can therefore say that **what makes an event news is its relationship with the audience.**

At this point, the question comes up: what are the characteristics that make news interesting, and therefore, popular in the eyes of the public?

There are **criteria**, called 'news values', that allow us to assess the ability of a news item to capture the interest and curiosity of the reader/listener. Let us look at some of these criteria:

- SOMETHING NEW: if an event is repeated with a certain frequency and the same characteristics, so that it is no longer new, it is unlikely to capture the public's interest and lose popularity.
- CURRENT events that have happened or have been discovered recently enough to create the curiosity of readers. It is an important concept on which the competitiveness of an editorial/media product is also based.
- CLOSELINESS: the closer an event is to the readers (in terms of geography, psychology, culture, etc.) the more likely it is to attract the public's attention and become potentially popular.
- SIZE: the larger the size of the event, the more effect it can have on the audience of readers/viewers
- DRAMATICITY: news that evokes strong emotions or impressions creates the public's curiosity much more than boring news.
- PRACTICAL CONSEQUENCES: news that has a direct impact on people's everyday lives is potentially more popular than news that has no relation to everyday life (e.g. increase in the cost of living, new regulations that bring about changes in people's lives, economic crises).

Nowadays, social media play a key role in the spread of news. Indeed, one of the most characteristic aspects of today's society is **speed**, and this is also true in the field of information: social media have become so popular because the news they provide is spread so quickly, they are constantly being updated, and they are a perfect tool for keeping up to date with what is happening in every part of the world.



Although social media have brought about positive changes, we should not underestimate the negative consequences. The rapid and immediate spread of information is not only for content that is considered 'valid' or 'true', but also for fake news that makes people fall into the trap of misinformation.

A large amount of fake news circulates on social networks and, even if not all of it is intentional, for others, articles with invented or attractive titles are created to catch the user's interest to click and open the link (click-baiting phenomenon), thus generating audience and gaining visibility.

We can, therefore, state that the advent of social media in relation to information is a double-edged sword.

The advantage and disadvantage of news circulation in social media is its main characteristic, namely **disintermediation**. Information is posted and shared on the web in real time and without any filter or control, since every Internet user can potentially be a content producer.

This freedom to produce content through social media makes people feel free to express their thoughts, opinions, values and moods without having to suffer consequences. This leads to people informing themselves very lightly and believing that they have a very valid opinion on a certain topic that they actually know nothing about, simply because they have read articles on social media.

So, what is the credibility of a news story circulating on social media based on?

The **credibility** and reliability of an online content publisher is not given by his skills or experience as an editor or as a professional in the field to which the news refers, but by his visibility built through his ability to generate curiosity in potential readers.

What makes it difficult to check whether a news item on social media is reliable and comes from a credible source, is the great freedom of speech that allows a huge amount of content to be produced on the web.

Moreover, unlike the news published in traditional newspapers, the information circulating on the Web and social media is not required to follow journalistic deontology and is not even controlled by source verification systems.

All this corroborates the statement of the American poet and academic, Charles Simic, who defined the historical period in which we are living as 'the Age of Ignorance'<sup>11</sup> where *we are surrounded by disinformation conveyed through tools such as the web and social media*.

#### 2.1.5. How to identify a fake news circulating on the social media

As illustrated so far, it is uncontested that fake news finds fertile ground on social media for a number of reasons mentioned in the previous paragraphs. According to the Oxford

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<sup>11</sup> Age of ignorance, 2012, Charles Simic, New York Review of Books



University's 'Router Institute Digital news report 2021'<sup>12</sup>, which surveyed around 46 countries, the credibility of news read on social media remains high, and Facebook has been recognised as the main social media producer of fake news.

Although most people claim to know what fake news is and many think they are able to distinguish it from real news, the question arises as to why the phenomenon of misinformation is still widespread.

The answer lies in the fact that people are overconfident in their own abilities, but in reality not everyone can recognise true information from false information circulating on social media.

*How, then, can we recognise fake news circulating on social media?*

Since social media is a public platform where anyone can post anything without being responsible for fact-checking, it is up to users to distinguish misinformation from disinformation. **What makes misinformation different from disinformation is the intent of the person or channel sharing it.**

MISINFORMATION	DISINFORMATION
Misinformation is false or inaccurate information. It is classified as 'false or misleading content, including hoaxes, conspiracy theories, fabricated news, click-baiting headlines and even satire'. Misinformation <b>DOES NOT HAVE the deliberate purpose of misleading</b> . Instead, it has the purpose of shaping or changing public opinion on a given topic.	Disinformation is false information which <b>HAS the deliberate purpose of misleading</b> by intentionally getting the facts wrong. It can be spread using many of the same tactics as misinformation: hoaxes, click-bait, made-up news. Disinformation is created to <b>deceive</b> .

There are several reasons why social media accounts of individuals or even companies can spread misinformation. It could be to increase the effectiveness of social media marketing, increase online traffic, increase followers of one's page or company, provoke an emotional reaction or create a distraction.

Misinformation can be dangerous on social media because the enormous amount of information and the length of the readers' attention threshold allows fake news creators to be in control.

If you want to become more media literate and be able to identify fake news, there are questions you can ask yourself such as:

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<sup>12</sup> [https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2021-06/Digital\\_News\\_Report\\_2021\\_FINAL.pdf](https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2021-06/Digital_News_Report_2021_FINAL.pdf)



- ✓ Does the account that shared the post have emotional or professional interests in these claims?
- ✓ What does the content claim to focus on?
- ✓ Is the information reasonable?
- ✓ Is it reliable or does it mention reliable sources?
- ✓ Why is the news important to the owner of the account that shared it?

## 2.2. POPULAR SOCIAL MEDIA FAKE NEWS

Social media and the new forms of relationships associated with them have become the main space for exchanging information, opinions, establishing relationships, but also for working and learning. Through digital platforms, information is created and circulated by anyone, private and public relationships are transformed, and social and political phenomena are dominantly influenced.

At the same time, these tools have manifested their power in transmitting information and news of general interest, and in reporting facts of public relevance with extraordinary speed.

Over time, all this has facilitated the proliferation of popular fake news in different fields and spheres of public and private life.

### 2.2.1. Most popular fields

What are the fields where fake news is most frequent and consequently popular?

Based on the Country Report elaborated at transnational level by the MCRE partner organisations, focused on the analysis of fake news in six EU countries (Romania, Italy, Cyprus, Poland, Portugal, Spain), it was found out that the main fields where fake news circulate are as follows:

- politics and government
- health
- environment
- economy and business
- entertainment and sport.

### 2.2.2. Some examples

The continuous flow of information shared in real time has turned social media into a fundamental element of our society and a means of information on national and international current events. Thanks to the multitude of social platforms available, everyone has the opportunity to stay constantly updated in real time on news and trends in political events through content of all kinds, such as articles, posts, videos, live streams, tweets and messages shared by private citizens, journalists and government institutions.



All this allows us to monitor the situation on the field and possible political developments.

In the field of **politics**, there are countless examples of fake news circulating at historic and crucial moments both local/national and global level.

### **Russia-Ukraine war**

Definitely, the most current example concerns the role of social media in the **Russia-Ukraine conflict**: it is the first to be witnessed not only by the traditional media, but also by social media, which have a horizontal and multidirectional communication, where governments and bodies dialogue with the population and simultaneously citizens dialogue with them.

Since the beginning of the war, social media has become a means of both communication and information, and political propaganda in the conflict between Russia and Ukraine. The news shocked the world and, rightly, monopolised the headlines in newspapers, print media and on digital platforms.

The flow of information is no longer shaped as in the past exclusively through the traditional media (such as television, newspapers, or radio): there are no longer only pictures taken by photo-reporters or videos of reporters in the areas where the war is taking place, but every person who is inside the conflict can document what is happening simply through their smartphone and then share it with the rest of the world via Internet.

Indeed, platforms such as Twitter, Instagram, TikTok and Telegram are used to tell the story and first-person experience of war. Sometimes it happens that citizens share the news even before the media arrive directly on the scene, so as to provide the facts even more in real time.

This feature represents a **risk for the reliability of the news circulating on social media**: on the one hand, the understanding of the war, and what is happening, is facilitated by social media; on the other hand, being a tool in the hands of anyone, **it can be the object of propaganda and manipulation, as well as unintentional disinformation**.

In fact, information, both true and false, is spread via digital platforms much faster and events are filmed in real time.

The war in Ukraine represents the moment when TikTok became, for the first time, a leading social media in shaping public discourse and opinion. This generated a stream of content that was shared and went viral, much of it even unverified. It is a chaos in which everything appears decontextualised and it is difficult to distinguish between fiction and reality. However, this is the way TikTok is structured: an endless stream of short videos, catchy but not particularly edited, where not only content from the profiles one has decided to follow appears, but everything that the platform's algorithm identifies as interesting to the user.



## 2016 U.S presidential elections

The 2016 US presidential election has well documented the impact of the ability to spread false information through the social platforms. This phenomenon takes advantage of the power of social media, allowing anyone to reach an audience of millions with content that is unchecked or fact-checked.

When it comes to finding breaking news, Twitter is the first place that comes to mind: this social media was, in fact, criticised for its role in the 2016 US presidential election. A study conducted by researchers at Oxford University<sup>13</sup> claims that Twitter was full of polarising and conspiratorial content during the 2016 presidential election. The content included links from Russian, WikiLeaks and junk news sources. The content used misleading information to influence readers' understanding of public issues by divisive and inflammatory rhetoric.

Although social media users shared a lot of political content, the amount of political news and information written by professionals was consistently lower than the amount of extremist, sensationalist, conspiratorial, fake news and other forms of junk news.

As a result, the circulated fake news created considerable disorientation among readers who were pressured to respect or hate one candidate over another on the basis of often emotional appeals.

## Covid-19

During the Covid-19 pandemic, the use of social media as a means of finding news increased considerably. A large percentage of the population looked for information about the pandemic through Instagram, Facebook and Twitter. People had both an urgency to understand what was going on in the unreal time they were experiencing and felt the need to be kept up-to-date. However, being unable to assess whether the news circulating on social media came from authoritative and reliable sources, they fell victim to the fake news and conspiracy theories that had found fertile ground on the many social platforms.

The spread of disinformation and misinformation about COVID-19 has very serious repercussions, putting public health at risk and directly affecting people's lives.

The fake news that has been circulating since the start of the pandemic, posing a serious danger to people's health, is essentially aimed at

- promoting fake products and services (e.g., fake Covid-19 tests and vaccines)
- encouraging a false sense of security (e.g., misleading information on treatments)
- creating suspicion and generating doubt about official guidelines and sources.

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<sup>13</sup> <https://www.courthousenews.com/wp-content/uploads/2017/11/social-media-report.pdf> "Social media, News and Political Information during the US Election: was polarizing content concentrated in swing states?" - 28.09.2017



### 2.3. THE CRITICAL USE OF SOCIAL MEDIA TO AVOID SPREADING FAKE NEWS

The possibility offered by social media to feel an active part of the information ecosystem extends the responsibility of individual users and their 'social' behaviour. Users are called upon to make a 'critical use' of social networks by avoiding spreading, without personal control, content and messages of poor quality and credibility. This is to protect both the user's credibility and, more generally, the credibility of the information system.

*What we say, the posts we like and the content we share become part of the information flow of our contacts. Each of us is 'media' and we should feel responsibility for our actions and choices in these digital environments. Being fully aware of our online behaviour can make us better together and contribute positively and constructively to the information ecosystem.*

*Valigia Blu (Italian Information community), post of 20/10/2016*

As today's digital and virtual world offers us the opportunity to actively participate, disseminate and create content, it is important to acquire the knowledge, attitudes and skills to recognise when and what information is needed, where and how to obtain that information, how to critically evaluate it and above all how to use it ethically. This set of knowledge and skills is called **media and information literacy**, defined by UNESCO<sup>14</sup>.

As has been extensively discussed above, nowadays we are overwhelmed by a multitude of news: some true, some false, some incorrect. Besides developing skills such as critical thinking, we can learn to distinguish which news is true through practice: this means not being satisfied with what it seems, but asking questions, reading carefully and looking for evidence to support what we are reading.

All people who use social media have an important role in preventing the spread of fake news, making sure that something is reliable before sharing it. So, what can we do to recognise fake content online? When is it necessary to double-check before sharing something online?

We should not go so far as to debunk everything that comes through social media, but we need to adopt **behaviours and develop skills** that allow us to make a proper assessment of the news we have come across, as explained below.

When you come across a news circulating the web via social media, you should first ask yourself a few questions before sharing or forwarding the post or article, as follows:

Did I make sure of the source? Is it a hot or controversial topic? Would someone reading my post base an important decision on what I am sharing? Does it seem 'too good to be true'?

In order to facilitate the analysis of a news circulating on the web, it might be useful to consider the following five questions:

**WHAT** kind of fake content?

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<sup>14</sup> <https://www.unesco.org/en/media-information-literacy>



Before believing or sharing something, it is important to identify whether it is true or false content. Among the different types of false information that are spread around, the most relevant are:

**Hoaxes and fake news:** This is news that is spread with the intention of misleading people. The reasons why this news is spread can be various: political reasons, ideological reasons, malicious intentions to make famous people look bad, financial gain and so on. A hoax becomes 'media' when it is spread and amplified by the mass media, either intentionally or unintentionally, due to insufficient verification of the sources of the news.

**Scams:** There are news stories or posts that aim to 'steal' your personal information or make you click on a link that will download malware onto your computer.

**Ads:** Sometimes there are fake ads that are disguised as real content that can mislead the reader.

### **WHO** is spreading this news?

Adults are more likely to trust the content of a story if it has been shared by a person they trust, so always identify the person who posted it. If the person who shared the news has not indicated the source, look it up and do not assume that a newspaper, TV network or online news site is the source.

Once you have identified the source, find out who the author is and why he or she might be considered a valid source for the news he/she is spreading. Depending on the type of source, you might do the following checks:

- Website: check whether the given web address exists or not.
- Scientific or health article: do a search on the author's name to see what comes up.
- Photo/article about something happening in a certain place: check whether any other news/photos about this event have already been posted.

### **WHY** is the news being spread?

It is important to identify the reason why a piece of news is given: remember that sensationalist or extravagant news or headlines often disguise fake news. It is necessary to investigate by means of guiding questions, such as:

Does it want to make me laugh? Scare? Make me angry? Does it use emotionally charged words or images to provoke an emotion in me?

Also, bear in mind that some fake news sources propose stories with the intention of making you hope that it is true so as to induce you to click and spread them: so be careful of stories that you like to believe.

### **WHEN** did the news start to spread?

Many news stories are published more than once: you can search for the story to see if it has been published before. In the case of a photo, you can search with the description of the photo to see if something previously published comes up.



Another signal to take into account when assessing the reliability of the news is how long the account of the person posting the news has been active. If an account appears to be new or has recently started posting with no history, pay attention.

**WHERE** can I find out if it is something real?

On the web, there are methods to understand whether a piece of news is real or not:

- ✓ For the checking of online news, it is possible to consult special sites that monitor the accuracy of facts such as [www.factcheck.org](http://www.factcheck.org) [www.snopes.com](http://www.snopes.com) [www.poynter.org](http://www.poynter.org) [www.PolitiFact.com](http://www.PolitiFact.com) (at international level) and other similar sites at national level.
- ✓ For images, you can conduct a reverse search on TinEye ([www.tineye.com](http://www.tineye.com)) where you will find information on where the image appeared and will also show similar images to determine whether an image has been modified.

In a nutshell, without necessarily having to become an 'evaluator' or 'fact checker', you can follow useful tips to spot if what you are reading may be inaccurate, incorrect or even false.



### 3. FURTHER READING

What is Social Media in Simple English - Created by Rapid Learning Life

<https://www.youtube.com/watch?v=jQ8J3IHhn8A>

Social Media, Explained for Beginners with Tips, History, Learning, Resources

<https://www.youtube.com/watch?v=ItoTvKPhgFk>

Top 10 most popular social media platforms in 2023

<https://www.shopify.com/blog/most-popular-social-media-platforms#:~:text=The%20latest%20statistics%20show%20that,are%20active%20users%20of%20Facebook>

“25 Advantages of Social Media that are good to keep in mind”

<https://www.youtube.com/watch?v=3zQtfnCdcNw>

What are the dangers of oversharing on social media?

<https://www.youtube.com/watch?v=e2xm5fc5MQk>

“Credible source: five tips to determine if your source is credible”

<https://www.youtube.com/watch?v=tdcmjPR7Ntw>

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10. <https://www.indypl.org/blog/for-adults/fake-news>
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12. [https://mediasmarts.ca/sites/mediasmarts/files/tip-sheet/tipsheet\\_false\\_content.pdf](https://mediasmarts.ca/sites/mediasmarts/files/tip-sheet/tipsheet_false_content.pdf)