The Impact of Digitalisation on Media and Journalism

Digital Transformation in Learning for Active Citizenship

By Valentina Vivona and Niccolò Caranti

Democracy and
Human Rights Education
in Europe

The Impact of Digitalisation on Media and Journalism.

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Authors: Valentina Vivona and Niccolò Caranti

Copy-editing: Katja Greeson

Design: Katharina Scholkmann (layout), Felix Kumpfe, Atelier Hurra (illustration)

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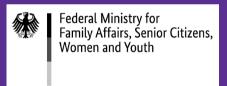
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Preface:

Into Digital Transformation

The social, economic, cultural and political impact of digital change in education and learning

Digitalisation is an essential part of our lives across all dimensions. Many people think that it is a technological process, i.e. it is mainly about computer servers, algorithms, Internet and the like. But that is only half of the truth. For example, it is difficult to separate digitalisation from almost all activities in our lives. When we shop online – are we online or are we shopping? When we play computer games – are we playing or are we at the computer? And when we are active in social media, we are both social and active in an electronic medium. Moreover, our health system is already digitised, the pollution of the planet is, to a growing extent, caused by digital technology, and activities such as navigating a car or collaboration in civil society are increasingly facilitated by digital technology.

This example seeks to point out that what we ultimately understand by "digitalisation" depends very much on how we look at the topic. It is after all possible to engage in all the aforementioned activities without information and communication technology (ICT). In this sense, we prefer the term *digital transformation*, because it explains a social, cultural or economic process in which things are done seemingly differently – made possible by information and communication technology. In this sense, education for digital transformation is learning about social, economic and cultural processes and about understanding the differences caused by technology. As such, in further exploring the topic, it is important to:

- 1. Look at both the technology and the nature of economic, social and cultural activities, for example, what we do in different social roles as digital customers, digital activists, digital workers and digital citizens.
- 2. Take an interest in the difference that digitalisation brings to such activities. What is changing thanks to new technology? What impact does it have on society?

There is No Overly Complex Issue for Education

A lot of curiosity and increasing concerns regarding digitalisation today have to do with its 'engine room' - the fascinating global infrastructure of the Internet, its enormous costs and hunger for energy, Big Data, AI, and the increasing economic value of digital platforms.

In particular, the growth of new kinds of platforms, fuelled by digital business models successfully capitalizing on users, is a widely visible phenomenon of this new technological and economic configuration. Consequently, their users are at the same time subjects and objects of digital change. They experience the opportunities made available through new, platform-mediated forms of interaction, but also feel uncomfortable since they are also symmetrically affected in their role as autonomous subjects. The right to independent information, privacy and security are, from this perspective, not yet sufficiently respected in the digital sphere.

The migration of substantial parts of working and communication processes to the digital sphere during the last decades is also simultaneously a benefit and a challenge. One aspect is technical mastery – access to current technology and the ability to use it in a competent way. A more fundamental aspect is that the "digital self" is completing people's analogue identity. Their digital traces are accompanying people's lives with related consequences for their various social roles as private subjects, employees and citizens.

Feeling overtaxed by all the associated challenges and concerns is a bad prerequisite for learning and a bad basis for considering future personal and social decisions. It is high time for adult education and youth work to do something about this double-edged sword.

In particular, adult citizenship education has a lot of experience teaching complex social issues and could transfer its methodology and approach to the topic of digital transformation. We know, for example, that nobody needs to be an economist to be able to codecide on political decisions affecting the economy. We also are capable of understanding the social impact of cars, despite very limited knowledge of automotive

engineering. Considering that it is possible to acquire knowledge about digital transformation, could we not even enjoy learning about Big Data, robotics, algorithms or the Internet of tomorrow similar to the way we passionately discuss political issues such as transport, ecology, or democracy? We should not, however, be blinded by the technical complexity of the digital transformation. It is important that we pay more attention to the social dimension, the intentions behind a technology, exploring its effects and regulations.

Although not familiar with all technical or legal details, most people intuit that it is ill-advised to give out personal information without consent. We suppose what the right to privacy should entail and what distinguishes conscious decisions from uninformed ones, and in our analogue world, we discourage the "used car salesmen" of our society from taking unsuspecting customers for a ride. After all, most of us have experienced the discomfort of having been deceived as a result of not understanding the fine print.

If we transfer this insight to a pedagogy of digital transformation, we must admit that we should also be willing to explore new aspects of the technical dimension such as data processing or the nudging mechanisms in online platforms. But that is not the only priority! The most important thing is that we know what our *rights* and *ethical foundations* are and how they relate to the new digital contexts and are able to act accordingly. These questions are not solely related to privacy and safety, as seemingly no aspect of social life is unaffected by digital transformation.

Using this foundation, we might further explore the potentials and risks of digitalisation in context, assessing its impact. Personal rights, for instance, entail privacy issues, but digital transformation has also led to new opportunities for co-creating, better information, or involvement of citizens in decision-making processes. On this basis, we are then able to define the conditions and rules under which certain digital practices should be rolled-out or restricted.

Electronic communication has changed the character of human communication as a whole. There are fewer impermanent ideas or assertions that go undocumented, to later be searched and rehashed. This change is both positive and negative, for example from the perspective of an employee who may be judged based on past decisions which live forever online. Pedagogy might help people to better understand the risks and benefits associated with electronic communication.

In addition, it will be a creative challenge to imagine the technology we want to develop as a society and what will help us to initiate social, economic and cultural changes in the future. In this regard, it is also important to develop a view towards the so-called 'skill gaps' and 'digital gaps' people may face when mastering digitalisation. What is the purpose of defining a gap; for whom is the gap relevant; in whose interest is it to argue the risk of gaps as opposed to their benefits?

Why Democracy and Rights-based Learning Makes the Difference

The essence of a definition of democracy and rights-based education can be found in the Council of Europe's Declaration regarding Education for Democratic Citizenship (EDC), which is "education, training, awareness-raising, information, practices, and activities which aim, by equipping learners with knowledge, skills and understanding and developing their attitudes and behaviour, to empower them to exercise and defend their democratic rights and responsibilities in society, to value diversity and to play an active part in democratic life, with a view to the promotion and protection of democracy and the rule of law" (COE CM/Rec(2010)7).

Transferred to the context of learning about digital transformation, we extract three core questions from this:

- 1. What digital transformation competence knowledge, skills, values and attitudes do citizens need to understand the digital transformation in their society and how it affects them in their different social roles?
- 2. How are fundamental rights and ethical foundations related to the transformation? Where do they shift their nature, what weakens them and what kind of development strengthens their enforcement?
- 3. What *active civic competences* do citizens need to contribute to the transformation, including participation in relevant public discourses and decisions, self-organisation and social engagement, and the development of social innovations?

Stakeholders from many different sectors have high expectations in education. In particular, they demand from earning for active citizenship a better preparation of Europeans for big societal changes. Only if we implement ideals of democracy "by design" into digital progress will we create a *democratic* digital society.

Enjoy and Explore

This reader series aims to introduce selected key aspects of digital transformation to educators and teachers in formal, non-formal or informal education. Our perspective is *Education for Democratic Citizenship* and our main goal is to motivate you as educators in adult education and in youthwork or other education fields to dive into the topics connected to digital transformation with curiosity and critical thinking as well as ideas for educational action. In other words: Nobody has to adore technology, but it is definitely worthwhile to become more comfortable with it. Digital transformation is a reality and as such, in principle, relevant for any specific field of

education, any subject, or pedagogy.

Together we might work on a broader understanding of what digital literacy is and explore as educators and learners in lifelong learning processes how it affects our lives. With a strong aspect of democracy and human rights in lifelong learning, we should lay the foundations for a democratic digital transformation and empower learners to find a constructive and active position in this transformation.

We aim to provide basic insights into some of the various aspects of digital transformation as a basis for further exploration. They tackle the digital-self, participation, the e-state, digital culture, media and journalism and the future of work and education. In each of the publications we also present our ideas as to how education might take up this specific topic.

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Media and Journalism

In this chapter, we discuss the impact of digitalisation on (news) media and journalism, and – consequently – on the public. In the first part, we focus on what has happened in journalism in the last two decades because of the huge influence of the Internet. As Terry Flew noted already in 2012, these are "interesting times" with both dangers and opportunities.

We also propose a timeline that goes much deeper into the past in order to give an idea of the increase of the speed of the changes happening and, at the same time, of the fact that some phenomena are not completely new.

The digital revolution has created a high-choice media environment, and one of the consequences has been (paradoxically?) news avoidance, which is the focus of the second part, and of a thought-provoking interview with Dr. Louise Woodstock, questioning the negative impact of news avoidance on individual political engagement. Another appearance in recent years has been so-called "fake news" (a term we argue should be avoided) or "disinformation", which as a term is fine but refers to just one of the problems. As such, we title the next paragraph "information disorder", which has a wider meaning. We discuss the dangers, the actors, and possible solutions.

Next, we examine new information models as possible ways out, including investigative journalism, explanatory reporting, solutions journalism, constructive journalism, and data journalism.

Finally, we focus on media literacy, a possible solution to the information disorder and a fundamental teaching not just for young people, but also for adult learners struggling to cope with the new media environment.

A timeline

1/50s•	Steven Gutenberg invents movable type.
1830:	Thanks to the invention of the hand-cranked rotary press, newspaper prices
	go down and readership begins to rise.
1838:	Samuel Morse demonstrates the electrical telegraph.
1890:	Implementation of the steam-driven press. Some metropolitan newspapers
1070.	sell as many as 100,000 copies a day.
1898:	The USS Maine explodes for unclear reasons. American newspapers boost
1070.	their circulation point to Spain, thus contributing to the start of the
	Spanish-American War.
1920s•	Radio news comes along.
1938:	"The War of the Worlds" radio drama by Orson Welles goes live on CBS. It is
	often claimed that it created widespread panic as people thought there was a
	real alien invasion (but this is unconfirmed).
1938:	The first electronic televisions are released commercially in the USA.
	Television appears in Europe.
	Television surpasses newspapers as an information source in the USA.
	Tim Berners-Lee invents the World Wide Web (WWW).
	Print newspapers go online.
	The Wall Street Journal sets up an online paywall, still in place today.
1998:	Larry Page and Sergey Brin found Google.
2001:	Wikipedia is founded.
2002:	Google News is launched.
2004:	Mark Zuckerberg creates 'The Facebook'.
2005:	Chad Hurley, Steve Chen, and Jawed Karim launch YouTube.
2006:	Google acquires YouTube.
2006:	Jack Dorsey, Noah Glass, Biz Stone, and Evan William create Twitter.
2007:	Apple launches the iPhone, its first smartphone, revolutionising
	the mobile phone industry.
2009:	WhatsApp is founded by Brian Acton and Jan Koum.
2010:	Kevin Systrom and Mike Krieger create Instagram.
2010:	The Times (UK) is the first general news site to implement a paywall.
2012 :	Facebook reaches 1 billion active monthly users.
	Facebook acquires Instagram.
	Facebook acquires WhatsApp.
	The Independent ceases printing and becomes an online-only newspaper.
	Zhang Yiming develops TikTok.
	The term "fake news" becomes ubiquitous.
	Facebook hits 2 billion active monthly users.
2018:	Instagram reaches 1 billion active monthly users.

Two Decades of Extreme Turbulence

"Chaotic information is free: good information is expensive"

Alan Rusbridger, The Guardian

Journalists made their first steps onto the Internet in the Nineties. In the United Kingdom, the Daily Telegraph launched its website in November 1994, followed by the BBC Online in 1997 and the Guardian in 1999; the last major UK national newspaper to do so was the Daily Mail in 2004 (Meek, 2006).

The Twin Towers attack on September 11, 2001, prompted massive surges in demand for news sites. It is believed that this tragic event marked a new era for online journalism. Yet - as a representative of the Daily Telegraph said - many people in the media sector were "in complete denial" (Kueng, 2017) during the first decade of the 21st century. Such a negative attitude towards digital transformation is due, according to Reuter's senior fellow researcher Lucy Kueng, to the fact that "running their organisations excellently has never been a priority for the media" as they "grew up in a steady state environment where change was gradual".

The digital transformation weakened the role of legacy media as gatekeepers to information, giving citizens easy and often free access to an unprecedented quantity of news. As of 2008, the economic crisis had severely decreased media funding, compelling the sector to find an online business strategy.

Today's media environment is increasingly digital, mobile, and platform-dominated. The most important traffic source for online media is Google followed by Facebook (WAN IFRA, 2019).

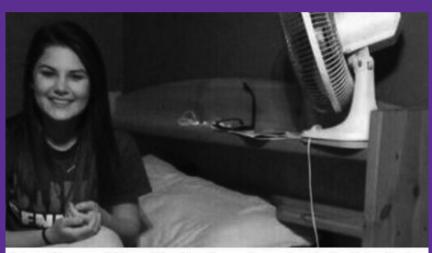
May 1982:

A British submarine sinks the Argentine battleship 'General Belgrano' during the Falklands conflict. The provocative Sun's headline is not SEO-friendly, as it does not include "Falkland" in the title, nor in the first words of the article (Richmond, 2008).



The concept of Search Engine Optimisation (SEO) reached newsrooms in 2006. By ensuring the presence of relevant keywords, the format of the articles had to adapt to chase online traffic. Sometimes optimisation can degenerate into click-bait, the creation of forward-referring, sensationalised, misleading headlines in order to attract clicks on the content from social networks or other webpages.

In 2011, the Council of Europe (CoE) framed a new definition of media (CM/Rec(2011)7) as involving any actor producing and disseminating media content online that has an impact on media markets and media pluralism, including social networks and online games. In doing so, the CoE entitled the new platforms to media freedom rights and responsibilities established under Article 10 of the European Convention on Human Rights (ECHR) providing the right to freedom of expression and information. It then established six criteria to identify a media actor:



Man divorced his wife after knowing what is in this photo
Husband took this photo of his wife after coming home from a twenty days' trip. At first, he thought that this was a
normal picture, but on a closer look, he found something shocking. Can you find out what is wrong with this picture?
thisimagedoesnotbelongtome.com

Example of clickbait (Mikkelson, n.d.)

Platforms represent the biggest shift and the biggest challenge in the media environment. They have brought access to a much larger audience than was previously feasible, but media organisations have lost control over the context in which content is consumed and, in many cases, over revenues. Digital advertising is mostly unprofitable. Print, both in terms of circulation and advertising, still delivers the largest share of revenues (WAN IFRA, 2019). However, the paying audience has dropped over the past two decades.

Criteria for Media Actors

Intent to act as media:

Self-labelling as media; Working methods which are typical for media; Commitment to professional media standards; Practical arrangements for mass communication **Purpose and underlying objectives of media:**

Produce, aggregate or disseminate media content; Operate applications or platforms designed to facilitate interactive mass communication or mass communication in aggregate (for example social networks) and/or to provide content-based large-scale interactive experiences (for example online games); With underlying media objective(s) (animate and provide a space for public debate and political dialogue, shape and influence public opinion, promote values, facilitate scrutiny and increase transparency and accountability, provide education, entertainment, cultural and artistic expression, create jobs, generate income – or most frequently, a combination of the above); Periodic renewal and update of content

Editorial control:

Editorial policy; Editorial process; Moderation; Editorial staff

Professional standards:

Commitment; Compliance procedures; Complaints procedures;

Asserting prerogatives, rights or privileges

Outreach and dissemination:

Actual dissemination; Mass-communication in aggregate; Resources for outreach

Public expectation:

Availability; Pluralism and diversity; Reliability; Respect of professional and ethical standards; Accountability and transparency

The CoE warns (CM/Rec(2018)1) that cost-cutting and job losses in traditional journalism can cause a reduction in quality and diversity of news, thus impoverishing the public debate.

As Lucy Kueng explains in the report Going Digital (2017), a couple of new online-only media, such as Vice and BuzzFeed, managed to put platforms at the core of their revenue model. An increasing number of established media organisations have reacted by building paywalls. The first general news site to implement, and maintain, a 'hard' paywall - charging access to all of its web content - was The Times in 2010. Digital news subscriptions have been growing globally over the past decade and they are expected to grow further. As Nic Newman from the Reuters Institute for the Study of Journalism stresses, the risk is that: "serious news consumption will be largely confined to elites who can afford to pay, while the bulk of the population pick up headlines and memes from social media or avoid the news altogether" (2020).

Navigating a High-choice Media Environment

"Improved technology increases access to news, but also makes it easier to avoid it"

(Joshua Benton, director of the Nieman Journalism Lab, June 2019)

The internet has given nearly unlimited access to information at any given moment. Such abundance can lead to the so-called information overload. This term was coined by Bertram Gross in his 1964 work "The Managing of Organizations" to define a state in which "decision-makers face a level of information that is greater than their information processing capacity" due to a rapid increase in the availability of information and a decrease in information search-related costs.

When presented with many options, individuals find it hard to actively compare and evaluate their characteristics and, as a result, will take themselves out of the decision-making process (Edgerly, 2017). Originally applied to consumer research, this tendency has been increasingly observed in media use.

As early as in 2005, Professor Mindich detected a decline in news consumption among under 40-year-olds across the United States over four decades. Professor Patterson added in 2008 that the increasing popularity of the internet among younger generations in the USA did not indicate a use of it as an alternative news source. Patterson recalls that early studies of the television revealed that many users were 'inadvertent' news consumers, that is running into it while keeping the device on. According to him, "the internet has even less capacity [than television] to generate a daily news habit for those without [a pre-existing] one".

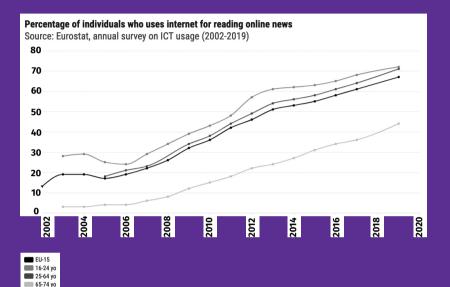
In 2017, Professor Stephanie Edgerly explored what strategies 21 American young adults (aged 18-27) have to locate current events information, finding that 49% of the interviewees rely on news media and 51% do not. The first group actively uses a variety of news sources, including social media for unfolding events or Wikipedia for background information on unfamiliar topics. For the second group Google is the compass, along with trusted interpersonal sources or the belief that 'important news will find' them 'anyway'. The two groups share a sceptical orientation to the modern media environment.

In 2014 a study by Professor Louise Woodstock explored the reasons behind news resistance among 36 individuals in the United States. Woodstock defines as news resisters the people who intentionally limit their news consumption, their disengagement not being due to lack of time, access, or means. The interviewees report that minimizing exposure to news has enhanced their willingness to participate in public life, whilst a higher consumption of news correlates with a sense of powerlessness. Again, news avoidance is a signal of distrust in journalism since most of the interviewees are critical of the state of the media environment.

The Reuters Institute for the Study of Journalism started digging into the issue of news avoidance in 2016 by leading a pilot study in four countries (the United States, the United Kingdom, Denmark and Spain) among survey respondents who reported consuming news 'less often than once a month' in its annual "Digital News Report". Among the reasons given for avoiding the news, the youngest group (18-24) tends to have 'more interesting things to do' while the middle-aged group (25-44) is more likely to get upset over news. A large group of respondents (30%), over-represented in the middle-aged group, are deliberately disconnected due to a deep-felt scepticism about the reliability of mainstream news.

In 2019, one third (32%) of the sample surveyed for the Reuters Institute Digital News Report claim that they tend to avoid the news because it has a negative effect on their mood and they feel powerless to change events - a higher share compared to previous reports. Notably, the researchers stress that in the United Kingdom news avoidance has grown 11 percentage points from 2017 to 2019 as a result of the Brexit coverage. Some young respondents (18-34) complain that "Brexit had seemingly been on the front pages for over a year without anything substantial changing". Reuters took a qualitative approach to analyse the news habits of twenty individuals aged 18-34 in the United Kingdom and in the United States. The researchers found that, being highly reliant on their smartphones, under 35 are likely to turn to social media and messaging apps for news. Especially the so-called Generation Z (18-24) look for instant gratification, wanting news stories to be as easily accessible as Netflix and to provide a path to positive action - while their general impression is that





Caption: Author elaboration on Eurostat data. Made with Flourish In order to have comparable data over time, only the EU-15 countries are considered: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and United Kingdom

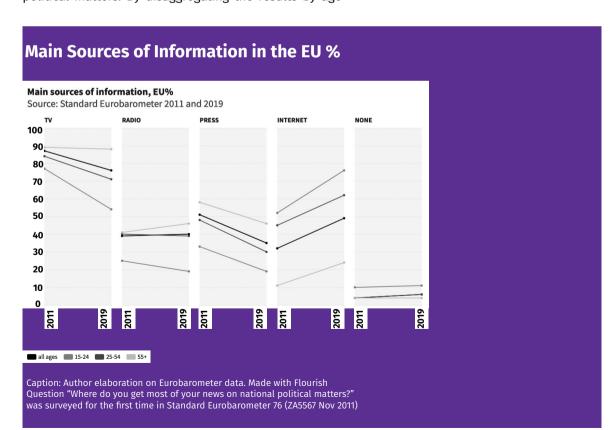
the media overplay the negative. Notably, 39% of the overall respondents to the 2019 Digital News Report think that the news media are too negative.

However, views on the tone of news coverage do not appear to influence trust significantly. People are more likely to trust the news if they feel it keeps them up to date with what's happening, helps them understand it, and holds power to account.

Most of the above presented studies find that women are more likely to avoid news than men. Interviewed by researchers Toff and Palmer (2018), most lower- and middle-income women in the United Kingdom say that they rely on their partner to inform them about important events. News habits, in this case, seem to be strictly tied to caretaking responsibilities and other gender issues, rather than digitalisation. The inclination towards news avoidance of younger, more digitalised generations is highly debated.

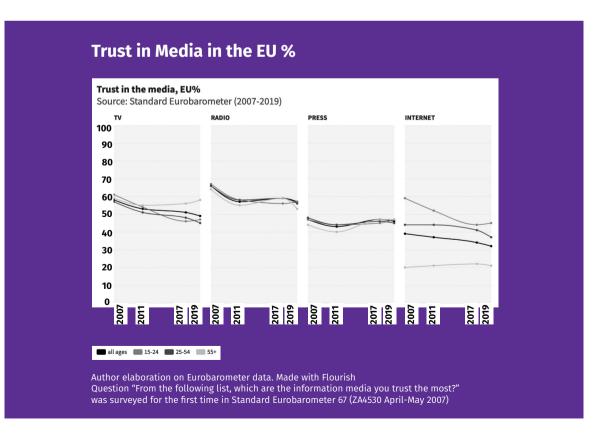
Referring to the annually released data of Eurostat (the European Statistical Office) on ICT (Information and Communication Technologies) usage in households, the attitudes of Europeans can be observed. The figure above shows that the percentage of individuals who use the internet for reading news has soared from 2002 to 2019 regardless of the age group considered. However, the older group (65-74 years old) largely lags behind the younger group (16-24), and the gap remains stable over time. Of course, this growth is strongly influenced by external factors such as greater access to the internet infrastructure as well as a higher number of available online news sources. But how does the internet rank compared to legacy media?

According to the Eurobarometer survey results, television appears as the medium of choice of most Europeans over time with 76% of respondents in 2019 considering it a main source of information on national political matters. By disaggregating the results by age



group, however, the internet stands out as the main source of information for the youngest generation (15-24), while TV use has declined by 29% between 2011 and 2019 among them. Across all ages, the use of the internet as a medium has increased by 53% over time while the written press has decreased by over 31%. The tiny share of people who "do not look for news" rose by 50% in the same period, with one out of ten individuals under 25 claiming so. Eurobarometer data allows us to detect a markedly positive correlation between trust and consumption for some media: the more one tends to trust the internet or television, the more one uses them. The same does not apply to newspapers or radio. Although the perceived credibility of media has generally, and unsurprisingly, declined between 2007 and 2019, a majority of Europeans still trust broadcast media. By contrast, those who rely on the internet and the written press are in the minority. It is worth highlighting at least three trends, namely:

A wide share (58%) of older people tend to trust the television; People's attitudes towards traditional media largely overlap regardless of age; The internet is the most divisive medium across age groups, as the figure below clearly shows.



Measuring trust is also crucial for business reasons related to audience building and strategic planning. That is why the European Broadcasting Union (EBU), gathering public Measuring trust is also crucial for business reasons related to audience building and strategic planning. That is why the European Broadcasting Union (EBU), gathering public service media in 56 countries, annually generates a Net Trust Index for several types of media building upon the Eurobarometer results. In its 2019 report, the EBU emphasises that the written press, for the first time, recorded a positive assessment whereas trust in the internet continues to decline. At a global level, the 2019 survey conducted by the market research firm, IPSOS, has similar findings as respondents in 27 countries around the world trust broadcast media slightly more than they trust the written press, and considerably more than news websites and platforms. As mistrust is mostly driven by the perceived prevalence of fake news, the IPSOS respondents rely on personal contacts as a source of information.

The written press has suffered the heaviest losses in usership over the last decade compared to other news sources. The aforementioned studies and surveys suggest that this might be linked to the decrease of 'advertent' - intentional – news consumers. Broadcast media appear to resist these losses because they offer entertainment along with informational content. As Edgerly (2017) puts it: "increases in entertainment options can crowd out news exposure – especially for individuals who lack an interest in news".

Furthermore, news seems to engender a sense of helplessness. Reuters' senior fellow researcher, Nic Newman, states in the report "Journalism, Media and Technology Trends and Predictions 2020" that the issue of disengagement and news avoidance will be a growing concern that media executives should face by countering cynicism and negativity.

A Few Questions About Media Resistance

with Dr. Louise Woodstock

Is media resistance an emerging issue mostly due to digital transformation?

There's definitely a history of media resistance. Each new technology has brought with it both great optimism and significant wariness. This is a repeated historical cycle; Tim Wu examines this in his 2011 book: "The Master Switch". That said, of course each technology has its own materiality and specific historical and cultural contexts. So in some ways, yes, resisting digital technologies, and the pervasiveness of media throughout our lives, as considered in mediatisation and practice theories, has unprecedented dimensions. The impact of the digital transformation is sweeping.

When did you start delving into this topic? What are your main findings to date?

My research started in 2010. I published articles in Journalism, the International Journal of Communication, and Critical Studies in Media Communication. Media resistance is a broad-spectrum phenomena and generalizations are elusive. For instance, in one study I was challenging the long-held idea that the press and democracy rise and fall together. In my qualitative study media resisters were fairly politically active and engaged in their communities. But on the whole, over the last 10 years, as we have seen democracies and the press decline, the argument that the two positively correlate is robust. At the institutional level, the link is very clear. However, the link between independent journalism and a robust democracy in terms of individual behaviours is less certain. There has been a growing voice that in fact moderating and limiting news consumption is important in terms of maintaining mental health.

What are the characteristics of media resisters (gender, age, education)? What are their main reasons?

It's important to note that not everyone is equally able to limit their media use. There is a privilege often that goes along with being able to do so. That said, I have talked with people who significantly limit their media use who are young, old, queer, straight, of different racial backgrounds. What most of the media resisters in my admittedly limited sample have in common is advanced education and middle or higher socioeconomic status. Reasons for media resistance range from disgust and disappointment with politics to concerns about the addictive qualities of social media. Most media resisters want to adopt a push orientation rather than a pull orientation with regards to media. They aim to be in control of their time. They want to avoid making themselves upset and unproductive.

Do younger generations tend to avoid news more?

I don't have enough data to be certain on this point. But tentatively, I think so.

What are the social and/or political implications of media resistance?

This too is a question that I think is quite pertinent but on which there is conflicting evidence. Historically, scholars bemoaned non-news consumers as a disengaged and uneducated populace, and worried that people will be ill prepared to vote and make informed choices. There's been a classist dimension to this analysis. However, in this era of online misinformation and manipulation, we have every reason to be concerned about the impact of propaganda. Amongst the people I've studied, medium resistance tends to be an individual choice. Collective behaviours, even at the familial level, are positively reinforcing. Of course, there are some cultures that have norms of avoiding technologies. There is the possibility for media resistance to be of greater political impact.

Should formal education address it? How?

Please quote concrete examples, if you came across any.

Educating students about the ways in which technologies are designed to captivate attention is critical. It is also essential to teach students about media industries, advertising, conglomeration, and the role of the press in democratic societies. Equally important is engaging students off-line. Cultivating knowledge and practices that are conducted outdoors, free of gadgets, should be part of every curriculum.

Conclusions for Education

The media usage has shifted during the last decades. A starting point for education can be to reflect this along the individual learner change of habits toward media. When did they use the internet for the first time and acknowledge new media actors as information sources relevant for them? What role do television and print media play for them? What kind of social and political developments where accompanying these shifts? How do they assess these developments?

Also trust and criteria for trust in information should be part of this reflection, since all media usage strategies (including resistance) are depending on the individual assessment of trust and trustworthiness.

From a Human Rights and Democracy perspective the function of old and new media environments for the public and how citizens aim to create conditions and regulations for them to fulfill their democratic function would play a crucial role. Aspects like quality of information, diversity of voices and opinions, or fair economic subsistence models for media enterprises and involved media workers could be part of this discussion.

Information Disorder

Fake news and disinformation has become a top topic in recent years, but it is not a completely new phenomena. While digitalisation has had a huge impact, many of its causes and solutions are not related to the digital world.

The concept of information disorder, first proposed by Claire Wardle and Hossein Derakhshan in a 2017 report for the Council of Europe, includes disinformation, misinformation and malinformation. We do not use the term fake news, that we discuss in a separate box.

In each of these macro-categories we can find different subcategories. Here are the most important. Some of the following definitions are also from another work by Claire Wardle (2017). Alice Marvick and Rebecca Lewis (2017) discuss malinformation in more detail.

Malinformation, including leaks, harassment and hate speech, is a slightly different issue from the others. Satire and parody are not included in the table, but they have the potential to fool, and a website with fabricated content might claim itself as a satire website to defend itself.

Some content may fall into more than one category, and in some cases, we may not be able to categorize something with full certainty, for example because we do not know the motivations. We may also legitimately not agree with these specific definitions. Still, what is most important is that not all false news is created equal: we must understand the complexity of the information environment, and a conceptual framework may help us in doing that. When one says "fake news" (a term we prefer not to use, see box) he or she might be

The part is derived from the Dossier: "Disinformation" published in 2019 by the Resource Centre on Media Freedom in Europe, a website curated by Osservatorio Balcani e Caucaso Transeuropa (OBCT). Fazıla Mat contributed to the dossier together with Niccolò Caranti.

Disinformation:

false information shared to cause harm; Misinformation: false information shared without meaning any harm; Malinformation: genuine information shared to cause harm.

Misinformation		
	False connection	headlines, visuals or caption not supporting the content
	Misleading content	misleading use of information to frame an issue or individual
Disinformation	False context	genuine content shared with false contextual information
	Imposter content	impersonation of genuine sources
	Manipulated content	genuine information or imagery manipulated to deceive
	Fabricated content	100% false, designated to deceive and do harm
Malinformation	Leaks	E.g. publication of private emails
	Public harassment	Doxing, revenge porn, social shaming, intimidation, etc.
	Hate speech	Violating sensibilities, often directed towards racial and sexual minorities and women

thinking of "fabricated content", news that is completely false: this is just one of our categories, and may not be the biggest problem.

In October 2019, Claire Wardle noted that since 2016 there has been an increased "weaponization of context", using warped and reframed genuine content, which is better than fabricated content to persuade people and is less likely to be picked up by social networks' Al systems that are part of fact checking efforts.

This seemed to be confirmed during the COVID-19 pandemic and consequent "infodemic", defined by the World Health Organization (2000) as "an over-abundance of information": The Reuters Institute for the Study of Journalism found that 59% of dis- and misinformation was "reconfigured" (false context, misleading or manipulated content), while only 38% was fabricated (Brennen, Simon, Howard and Nielsen, 2020).

Fake News

The term fake news in itself is not new at all – in an 1894 illustration by Frederick Burr Opper, a reporter is seen running to bring them to the desk – but it became ubiquitous (Farkas & Schou, 2018) during the 2016 US presidential elections, being used by liberals against right-wing media and, notably, by then-candidate Donald Trump against critical news outlets.

The term has been variably used to refer to more or less every form of problematic, false, misleading, or partisan content (Tandoc, Lim & Ling, 2018). It has thus been criticised for its lack of "definitional rigour" and for having been "appropriated by politicians around the world to describe news organisations whose coverage they find disagreeable" (Wardle and Derakhshan, 2017). A Handbook by UNESCO (Ireton and Posetti, 2018) even put a strikethrough on it in its cover.



Source: Opper, F. B. (1894) The fin de siècle newspaper proprietor / F. Opper., 1894. N.Y.: Published by Keppler & Schwarzmann, March 7. [Photograph] Retrieved from the Library of Congress, https://www.loc.gov/item/2012648704/

The Dangers

Information disorder poses many dangers (Wardle and Derakhshan, 2017). In 2016, a man opened fire in a restaurant and pizzeria in Washington, D.C., looking for a basement in which children were supposedly held prisoner. There were no children, not even a basement; the belief was part of a conspiracy theory, known as Pizzagate (Pizzagate, 2017). Climate-related conspiracy theories pose a threat to the environment and medical misinformation poses a threat to health, and can even lead to riots, as happened in Novi Sanzhary, a small town in Ukraine because of the fear that people with coronavirus were going to be brought there (Miller, 2020).

News is one of the raw materials of good citizenship. as "The healthy functioning of liberal democracies has long been said to rely upon citizens whose role is to learn about the social and political world, exchange information and opinions with fellow citizens, arrive at considered judgments about public affairs, and put these judgments into action as political behavior" (Chadwick, Vaccari, & O'Loughlin, 2018). Information is "as vital to the healthy functioning of communities as clean air, safe streets, good schools, and public health" (Knight Commission, 2009). Dis- and misinformation pollute the information ecosystem and have "real and negative effects on the public consumption of news". Distrust can become a selfperpetuating phenomenon: "Groups that are already cynical of the media — trolls, ideologues, and conspiracy theorists — are often the ones drawn to manipulating it. If they are able to successfully use the media to cover a story or push an agenda, it undermines the media's credibility on other issues" (Marvick & Lewis, 2017). In the long term, this is a risk for democracy (DCMS, 2018).

Disinformation accusations can also become a weapon in the hand of authoritarian regimes: world leaders use them to attack the media (The Expression Agenda Report 2017/2018) and in 2019, 12% of journalists imprisoned for their work were detained on false news charges (Beiser, 2019).

The 'Assembly Line'

Some viral (and false) news stories during the 2016 US elections were created by people in the small town of Veles in Macedonia. Their biggest hit was an article titled "Pope Francis Shocks World, Endorses Donald Trump for President", which was of course entirely false (Silverman & Singer-Vine, 2016). They claim they did it only for economic reasons to make money from the ads (Subramanian, 2017). But this is just one case, and the "assembly line" of dis- and misinformation can take different forms.

Wardle and Derakhshan (2017) identify three elements (the agent; the message; the interpreter) and three phases (creation; production; distribution) of "information disorder".

The agents could be official actors (i.e. intelligence services, political parties, news organisations, PR firms or lobbying groups) or unofficial actors (groups of citizens that have become evangelised about an issue) who are politically or economically motivated. Social (the desire to be connected with a certain group) and psychological reasons can also play a role.

The agent who creates and conceives the idea on which the content is based is often different from the one who practically produces it and the one that distributes and reproduces it. Once a message has been created, it can be reproduced and distributed endlessly by many different agents all with different motivations. Interpreters may become agents themselves: a social media post shared by several communities could be picked up and reproduced by the mainstream media and further distributed to other communities.

The same piece of information might be originally born as satire, or even as real news, and then become misinformation in the eye of different interpreters or in the hands of different agents. When Notre Dame caught fire in 2019, an article documenting that a gas tank and some Arabic documents were found near the Cathedral emerged: although the article was real, it was from three years prior in 2016, thus becoming a case of false context (Bainier & Capron, 2019).

Russian Trolls and the Usual Suspects

In recent years there has been a lot of talk about "Russian trolls", as if they were the main, if not the only, agents responsible for the existence of the information disorder. In this paragraph we will see who they are, what they are responsible for, and if there is any other explanation for what is happening.

Trolling itself is as old as online forums, but "Russian trolls" refers to a slightly different phenomenon. While normal trolls do what they do for fun (a strange kind of fun, called the "lulz" in jargon), it has been demonstrated that the Internet Research Agency (IRA), based in Saint Petersburg and sometimes called the "Russian troll

factory", contracted people to influence public opinion abroad for the Russian state (MacFarquhar, 2018). The IRA is probably owned by Yevgeny Prigozhin, an oligarch linked with Russian president Vladimir Putin. Inside Russia, the IRA also has the primaryfunction of making meaningful discussion amongst civil society impossible, a practice labelled "neutrollization" (Kurowska & Reshetnikov, 2018).

While most of their activity is in Russia, it was notably revealed that they also interfered with the 2016 U.S. elections (Linvill & Warren, 2018) in what can be considered an information operation, a deliberate and systematic attempt by unidentified actors "to influence public opinion by spreading inaccurate information with puppet accounts" (Jack, 2018).

It has been argued that this operation was not aimed much at convincing someone of something, but more at spreading uncertainty, sowing mistrust and confusion – a purpose that is typical of many disinformation campaigns (Wardle & Derakhshan, 2017). For their purpose, Russian trolls have also made use of bots (automated social media accounts run by algorithms) and botnets (network of bots) (Barojan, 2018). Russia is not the only country that has been involved with this kind of information operation: in 2019 Twitter explicitly accused China of an information operation directed at Hong Kong (Twitter safety, 2019). Countries can also indulge with information campaigns that are different from information operations, because while their content might be true or false, their author is not hidden.

However, foreign countries are not the only cause of the information disorder (Gunitsky, 2020). Others, including social media and phenomena related to social media, have also been accused.

Algorithms and Other Suspects

Search algorithms decide why a certain link appears in the first page of a search engine's results (Google's is called PageRank). Social media algorithms also decide

Troll:

a real person who "intentionally initiates online conflict or offends other users to distract and sow divisions by posting inflammatory or off-topic posts in an online community or a social network. Their goal is to provoke others into an emotional response and derail discussions" (Barojan, 2018).

what you see. On your Facebook newsfeed you might see a link to a junk news website, a mainstream newspaper or a photo of your nephew depending on what the algorithm prioritizes. The algorithm behind suggested videos on YouTube has been accused of *amplifying* junk content, misinformation, conspiracy theories, etc. (Carmichael & Gragnani, 2019).

The serious problem with algorithms is that they are often not transparent: we don't know how they work. So while it seems unlikely that Google and Facebook are actively and consciously promoting disinformation, it may well be that their algorithms accidentally favour such content, for example because it gets high engagement and thus is likely to get more clicks and generate more revenues for the platforms (Bradshaw & Howard, 2018).

When you see a physical ad, for example on a billboard, everyone else can also see it. On the web this works differently: on Facebook and elsewhere, you can make your ads only visible to your target, using different elements, such as location, age, etc. This is called *microtargeting* and it is commonly used for commercial ads. However, this can become problematic with political ads. If a politician makes a false claim on a physical billboard or on TV, journalists would be able to debunk it. If instead he makes it in a microtargeted ad, it would be more difficult to identify and correct. As a result, we use the term dark ads.

The problem, however, has been partially resolved in recent years. In 2019, to respond to the harsh criticism received, Facebook launched an Ad Library in which all political ads that have appeared on the platform are available (Constine, 2019). Additionally, you can see who paid for the ad. Of course, these systems can be tricked, as you might be able to make a political ad which is not recognised as such by Facebook or to pay through a dummy person or organization.

Individuals play an important role in exercising their information preferences on the internet. Some academic studies have demonstrated that people are more likely to share information that conforms to their pre-existing beliefs with their social networks, deepening ideological differences between individuals and groups. It has thus been argued that social media creates ideological segregation leading to the creation of "echo chambers".

The term is a metaphor to describe the situation where a person interacts primarily within a group of people that share the same interests or political views (Dubois & Blank, 2018). A somewhat related concept is "filter bubbles", a term coined by internet activist Eli Pariser (What is a Filter Bubble, 2018) to refer to a selective information acquisition by website algorithms, including search engines and social media posts. This may also help the circulation of fake news. However, among scholars there is no full consensus on how these phenomenon operate over the internet (Flaxman, Goel & Rao, 2016), and some studies argue that the danger is non-existent or overstated (Fletcher & Nielsen, 2018).

In "Network Propaganda", a comprehensive study of media coverage of the 2016 U.S. presidential elections published in October 2018, Yochai Benkler, Robert Faris, and Hal Roberts argue that the cause of the current situation are not the usual suspects

(social media, Russian propaganda and fake news websites), but a longstanding change of the right-wing media ecosystem (e.g. Fox News), that has abandoned journalist norms creating a propaganda feedback loop.

While they focus only on the American case, their method and approach could be used to analyse the mainstream media ecosystem in other countries, and many insights may be similarly valid. Interestingly, a study in the UK examined the role of "traditional" British tabloids, and noticed that the more the users share tabloid news on social media, the more likely they are to engage in sharing exaggerated or fabricated news (Chadwick, Vaccari, & O'Loughlin, 2018).

Any Solution?

As the problems behind the information disorder are many, and not all of them are clear, it is obvious that, unfortunately, there is no silver bullet. In particular, solutions aimed at fighting foreign disinformation cannot be sufficient, even if they were able to nullify it completely, which is unlikely.

One part of the solution may be fact-checking. The term usually refers to internal verification processes that journalists put their own work through, but fact-checkers (or debunkers) dealing with disinformation are involved in ex-post fact-checking, verifying news by other media and publishing the results. Facts alone, however, are not enough to combat disinformation (Silverman, 2015), as it may continue to shape people's attitudes even when debunked (Thorson, 2016). Additionally, people who see the fact-check are often not those who saw the incorrect news, but people who did not see the incorrect news at all or who saw it but recognised or suspected that it was false to begin with.

Excluding advertising from false news websites may be helpful against those with only an economic motivation. However, as we have seen, not all creators of disinformation have an economic motivation. Moreover,

this practice may be problematic as this can lead to a form of economic censorship controlled by corporations.

Media literacy is widely acknowledged as a key mitigation factor for disinformation, as it teaches people how to recognise it. It "cannot [...] be limited to young people but needs to encompass adults as well as teachers and media professionals" in order to help them keep pace with digital technologies (HLEG, 2018). Clearly, this is not a fast solution. Organisations like UNESCO and the European Union (particularly with the DigComp) have been active in improving media literacy.

The role of mainstream media is fundamental in many ways. First of all they should keep a high standard of quality: if they themselves are a source of misinformation with exaggerations, clickbait, etc. they are part of the problem, not of the solution. If they are able to do so, and to recover the trust they have lost, people would not search for news in other, less trustworthy places.

Some minor tricks might also be helpful, such as making the date of the article visible in the image preview on social networks to avoid them being used in a false context. But more could be done: transparency on (non-confidential) sources and on methods can help the public learn how good journalism works and to distinguish it from bad examples.

Conclusions for Education

There are many high-quality approaches that have been developed to work **with youth** on the topics of hate speech and disinformation. They range from week-long workshop concepts to short courses adaptable to be used in the classroom.

Especially in social media work with young people, there are high-quality concepts that cover online and offline, from developing capacities for media use and production to the critical reflection and consumption of media as well as observing the mediascape from a perspective of consumerism. They are competency-centred and address knowledge, skills, attitudes and values in a holistic way.

These approaches need to be **transferred into lifelong learning contexts** and thanks to well-developed already existing methodologies, they might easily be adapted to the needs of adult learners.

In particular in the fields of **Education for Democratic Citizenship and Human Rights (EDC/HRE)** these concepts integrate the three basic dimensions of digitalisation and civic education in a positive and enabling way:

- To understand how digitalisation is shaping people and societies, including its impact on youth work and Adult Education
- To be able to take people's digital cultures into account in LLL-practices
- To be able to encourage people to shape the process of digitalisation

However, there seem to be few pedagogical concepts that also contextualize these phenomena to a media and media market analysis in our countries. It is of considerable importance to connect these aspects to the perspectives of democracy, formation of opinion and human rights.



What Ways Out? New Information Models

"Does anybody know how Ebola was stopped?"

Samantha McCann (Solutions Journalism Network) International Journalism Festival, April 2018

Philosopher Rolf Dobelli wrote in 2010, "Avoid the News", an essay in which he compiled fifteen arguments against consuming the news, stressing in particular how it overplays certain sensational events (airplane crashes, for instance) thus producing a false 'risks map' as well as amplifying cognitive bias in individuals. As a self-identified former news-junkie, Dobelli firmly claims that *going news-free* has allowed him to focus on the underlying processes of how things happen. In fact, he believes that opposed to the glut of breaking news, there is a proper information system based on long-formats with explanatory power, books and documentaries.

In Dobelli's opinion, the society needs only two kinds of journalism:

investigative journalism to hold the power to account

explanatory reporting which allows people to make informed decisions

His essay had a relevant echo among media organisations. In the Netherlands, journalist Rob Wijnberg decided to publish the entire essay on its daily newspaper, then he quit his job and in 2013 founded the online media outlet *De Correspondent*, committing to "collaborative, constructive, ad-free journalism" (Wijnberg, 2020).

Researchers agree that negativity is likely to reduce rather than increase levels of motivation to address important global challenges such as sustainability, climate change and poverty.

Given that it is journalists' duty to alert the public of threats, practitioners are trained to understand conflict and bad events as newsworthy (Harcup & O'Neill 2017).

Conversely, news editors perceive positively framed news as frivolous (Baden, 2015). In 1993 the news broadcaster Martyn Lewis made a speech to the University of Colorado school of journalism arguing for more positive news coverage, sparking both criticism and enthusiasm across the media environment.

While they are not the same concept, positive journalism may take the form of solutions or constructive journalism.

Constructive Journalism

In 1998, Professor Benesch already referred to "the rise of *solutions journalism*", a form of explanatory journalism highlighting effective responses to entrenched social issues aiming to give the audience a more comprehensive picture, toning down the rhetoric by balancing pros and cons. Since it does not aim to entertain, it differs from plain reporting on 'good' or 'soft' news. It aims to facilitate public debate, but it does not take a stance on political views – thus differing itself from advocacy or activism.

McIntyre & Gyldensted (2017) define constructive journalism as a form of journalism that involves applying positive psychology techniques to news processes and production in an effort to create productive and engaging coverage, while holding true to journalism's core functions. It is an umbrella term including solutions journalism and other forms of journalism. Positive psychology techniques refer to providing information about potential solutions to social issues, or evoking positive emotions in news stories. In this sense, journalists' duty turns into disclosing threats along with opportunities.

The Constructive Institute, founded in Denmark within the Aarhus University in 2017, has summarised its core principles:

Constructive Journalism is

Critical, objective and balanced Tackling important issues facing society Based on facts and unbiased Calm in its tone Does not give in to scandals and outrage Bridging, not polarising Forward-looking and future-oriented Nuanced and contextualised

Constructive Journalism is Not

Promoting a specific agenda, crossing the line between journalism and politics Uncritical or naive
Promoting heroes, governments or civil society organizations
Obscuring critical viewpoints
Activism in any shape or form
Dumbed-down, trivial or happy news
Giving in to false equivalence / balance
Advocating one solution over another
Oversimplifying complex problems
or solutions to complex problems

Source: Constructive Institute

Large media organisations have started experimenting with constructive journalism in recent years. The New York Times created the solution-based "Fixes" column in 2010, getting such a strong response from readers that leading journalists, David Bornstein, Matthew Rosenberg, and Courtney Martin, co-founded the Solutions Journalism Network in 2013, an independent, non-profit organisation with a mission to make

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	Breaking	Investigative	Constructive
Time	Now	Yesterday	Tomorrow
Goals	Speed	Blame	Inspiration
Questions	What? When?	Who? Why?	What now? How?
Style	Dramatic	Critical	Curious
Role	Police	Judge	Facilitator
Focus	Drama, conflict	Crooks, victims	Solutions, best practice

solutions journalism a part of mainstream practice in news. The Guardian followed in 2016 by launching a constructive journalism pilot project which attracted around 10% more readers. Thus, in 2018 it created "The Upside", a series reporting on the people and initiatives working to find answers to society's most pressing issues.

In 2018, Professor Baden studied the impacts upon society of constructive news stories. She found that exposure to positive news resulted in a higher motivation to act, whereby the more negatively respondents felt after the news stories, the less motivated they were to take action. Although catastrophically-framed news seems to capture attention more than solutions-framed stories, respondents show a clear preference for the latter (Baden, Mcintyre & Homberg, 2019).

Data Journalism

Although data analysis is not at all new to reporting, and computer assisted reporting has been practiced since the 1970s, data journalism "became part of the industry standard" (Rogers, 2011) only after the Wikileaks' Afghan War documents leak in 2010. Tools, tutorials, festivals and awards have flourished over the last decade, making data journalism more and more visible, to the extent that many medium-to-large newsrooms now have their own data team. Catchy visualizations may convey messages more effectively than long pieces of text and they surely work well on social media. In order to gain views,

newsrooms have been experimenting with data journalism (to be more precise, one should distinguish between data-driven journalism and a looser form of journalism with numbers). The digital environment offers excellent opportunities for data-driven stories, which can be told in interactive ways or by combining text with charts, maps, videos, and animations. At least in some countries, data teams have gained a relatively high status within their newsrooms, thanks to their expertise and to the added value that they can bring to their outlet's traffic and engagement figures. Typically, such team expertise is made of a unique combination of skills, bringing together journalists with developers and designers.

Data journalism makes it possible for news organisations to explore new, digital-wise, social media-effective ways of telling stories to readers. It also helps quality media outlets highlight the added value of their work and the professional skills and costs that come with it, making the case for the need for continued trust and financial support of readers. At least in principle, data journalism appears to be especially fit in meeting some of the challenges of the current informative environment. Stories are based on a given set of data, which is typically indicated and accessible to everyone, and original data is treated in a transparent way, to the extent that many articles come with a methodological note and many authors share the code they write to analyse the data (this also occurs because in most countries there is some overlapping between the data journalism and open data communities). The development of data-driven stories does require the creation of a team with specific skills, but it can also be cost-effective, as most of the work can be done from a desk.

Data journalism is not the promised land of balanced quality journalism however. Risks of disinformation and misinformation are just as high in data journalism as in other forms of reporting, as the same numbers can be used to tell very different stories, including inaccurate or misleading ones. Leaving the case of intentional misreading of data to the side, there is a serious issue with data literacy in many newsrooms, which have been faster in falling in love with data journalism than in building sound skills in data analysis. The offer of trainings in data journalism is sky-rocketing though, and the unprecedented journalistic use of data fostered by the COVID-19 pandemic (including countless cases of inaccurate reporting) may speed up the process, making entry barriers lower. In order for data journalism to be really effective in increasing readers' trust in the news and ability to detect misleading content, it is also essential to invest in readers' own data literacy – journalists must make sure that charts are not only catchy, but intelligible to everyone.

Wikipedia

We have encountered Wikipedia a few times in this chapter as many students are told it is untrustworthy while many use it as a news source, so it is important to know what it is and how it works.

Wikipedia is a free online collaborative encyclopaedia. Its contents are not only available for free, but they can also be freely reproduced under a free license. Its content is written by volunteers and it is supported by the Wikimedia Foundation, a non-profit organization supported by donations.

Wikipedia currently has 1.5 billion unique visitors per month on average from July 2018 to June 2019 (Wikimedia Statistics, n.d.), and is one of the top sites on the web according to Alexa (n.d.). It is one of the few websites in a high position which is not commercial in any way, not hosting advertising and not selling anything, a choice that was made to support its principle of a neutral point of view (Wikipedia:Neutral point of view, n.d.) by avoiding possible influence from investors.

Wikipedia is available in circa 300 languages: different editions are based on language and not on country, so e.g. there is only an "English Wikipedia" and not an American and a British one. Each language edition is managed autonomously by its community, so while it is possible to translate from one language to another, the same article may differ in different languages, or might even exist in some languages but not in others.

Anyone can contribute to Wikipedia, without giving his/her name, qualifications, etc. It is even possible to contribute without creating an account: in this case, the IP address is saved. While it is possible to consult the full history of each article, this does not tell much about its authors: while some choose to register with name and surname, many use a nickname or a pseudonym, and do not tell anything about their CVs. Moreover, each edit is immediately effective without a prior check. These characteristics might scare someone, but they are also the reason for the success of Wikipedia.

In fact, it was born in 2001 as a side project of another free encyclopaedia, Nupedia, which worked in a more similar way to traditional encyclopaedias, with expert contributors working alone on their articles, and a peer review system. Since Nupedia did not enjoy much success, Wikipedia was created to allow easier creation of content that would then be transferred to Nupedia. However, Wikipedia had such a huge success that it became an autonomous project and Nupedia was later closed down.

Studies have demonstrated the quality of Wikipedia (Giles, 2005). While its functioning cannot grant that a certain article maintains a good quality at any moment, its policies, and volunteers checking other's contributions (an activity that is called *patrolling*) have been able to create and maintain a good standard. Importantly, since Wikipedia cannot ask its readers to trust its multiple and 'unknown' authors, its policies require that all claims have a *public and reliable source*. In this way, a

reader can give a first evaluation of the quality of an article on the sources that are cited. If one needs only an overview (and it is not a life or death situation) one can read only the article, otherwise one can start from it and then move to the sources and further reading that are cited in the article.

But while Wikipedia can be used in a passive way, in an educational context it is probably more useful to use it and engage with it actively. It has been used in education projects in which participants were asked to contribute. In this way they can learn about the topic about which they are writing, how to search for and to cite sources and about the functioning of Wikipedia.

Each Wikipedia article has a talk page in which contributors can discuss the article, how to improve it, if certain information is relevant, etc. Wikipedia has a strict code of conduct, so while it can sometimes become heated – conflict is arguably as important as collaboration (Jemielniak, 2014) – the discussions on these pages tend to be quite different from the ones happening on social networks such as Facebook.

Wikipedia is also better than Facebook and other platforms in *fighting disinformation*: one of the main reasons being that its purpose is not to be a space for debate, but for "organising the sum of all human knowledge", based on facts and sources (Benjacob, 2019). This has been demonstrated also during the Coronavirus pandemic (Benjacob, 2020). This example is also useful to show that, different from traditional encyclopaedias, because of its real time working and its huge authorship, Wikipedia can deal with recent and ongoing topics including terrorist attacks, as explored by Ricci, Maneri, & Quassoli (2019).

Wikimedia Foundation conducted a Wikipedia Readership Survey in 2011 (Research:Wikipedia Readership Survey 2011/Results, 2012). Among its findings: the average reader is 36 years old; almost half of them visit the site more than five times a month; a slight majority of readers are male; and Google drives traffic to Wikipedia although half of readers look specifically for Wikipedia content.

More recently, a 2016 qualitative study demonstrated Wikipedia is commonly used among young adults as a complement to news media, to aid learning and procure background information (Edgerly, 2017).

Media and Information Literacy

Media and Information literacy (MIL) is defined by UNESCO (2018) as a composite concept including "a set of competencies that enable individuals to search, critically evaluate, use and contribute information and media content wisely; to develop a knowledge of one's rights online; understand how to combat online hate speech, fake information and news and cyberbullying; understand the ethical issues surrounding the access and use of information; and engage with media and ICTs as producers of information and media content to promote equality, self-expression, pluralistic media and information, intercultural/inter-religious dialogue, and peace". As the image shows MIL includes "all forms of media and other information providers such as libraries, archive, museums, Internet, films irrespective of technologies used". Sometimes just media literacy is used as an 'umbrella term' with a similar meaning (Media literacy expert group, 2011). An alternative definition proposed by UNESCO (2013) is the following:

Media and Information Literacy

"MIL is defined as a set of competencies that empowers citizens to access, retrieve, understand, evaluate and use, to create as well as share information and media content in all formats, using various tools, in a critical, ethical and effective way, in order to participate and engage in personal, professional and societal activities".

In this case, the democratic value of participation fostered by media and technology is at the very heart of the conceptual elaboration. UNESCO (2018) itself recognizes that citizens are "rarely equipped with MIL skills in order to participate in every aspect of public life, in the democratic process and make informed decisions about their own lives". If crucial democratic aspects are to be maintained and developed, skilled and critical citizens should be educated and given the tools to decrypt the complexities of modern society (Carlsson, 2019). In the digital age, characterized by information overload, it is crucial that every citizen masters the basic tools to assess the information that she/

he receives. This can help to "avoid the risk of making important choices (for example about health or how we vote) based in misinformation, and can help to ensure that our personal data is not misused" (APCEIU, 2019).

A useful reference for citizenship competences was set by the European Union in 2013. It has developed the so-called Digital Competence Framework for Citizens (DigComp). A DigComp 2.0 was published in 2016 and updated in 2017 to DigComp 2.1. Among the competence areas is the first "Information and data literacy" (DigComp, n.d.).

From a pedagogical point of view, MIL addresses the three Global Citizenship Education (GCED) learner attributes set by UNESCO (2015). A GCED learner is

socially informed and critically literate socially connected and respectful of diversity ethically responsible and engaged

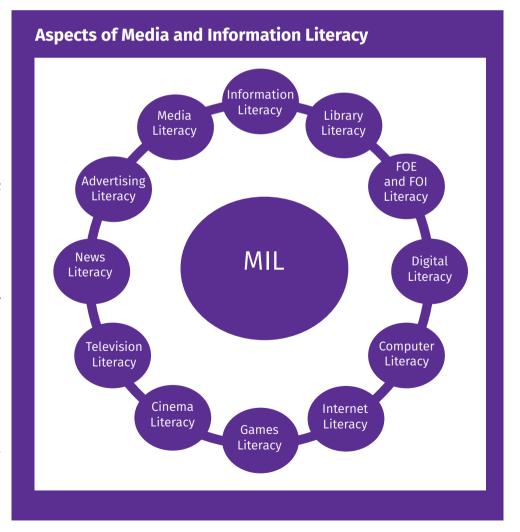
The learner can develop these attributes working on the following three connected learning dimensions: cognitive, socio-emotional and behavioural. In particular, within the framework of GCED, MIL education can contribute to preventing different forms of violent extremism, for example by helping learners to recognise propaganda, manipulation of information and conspiracy theories (APCEIU, 2019).

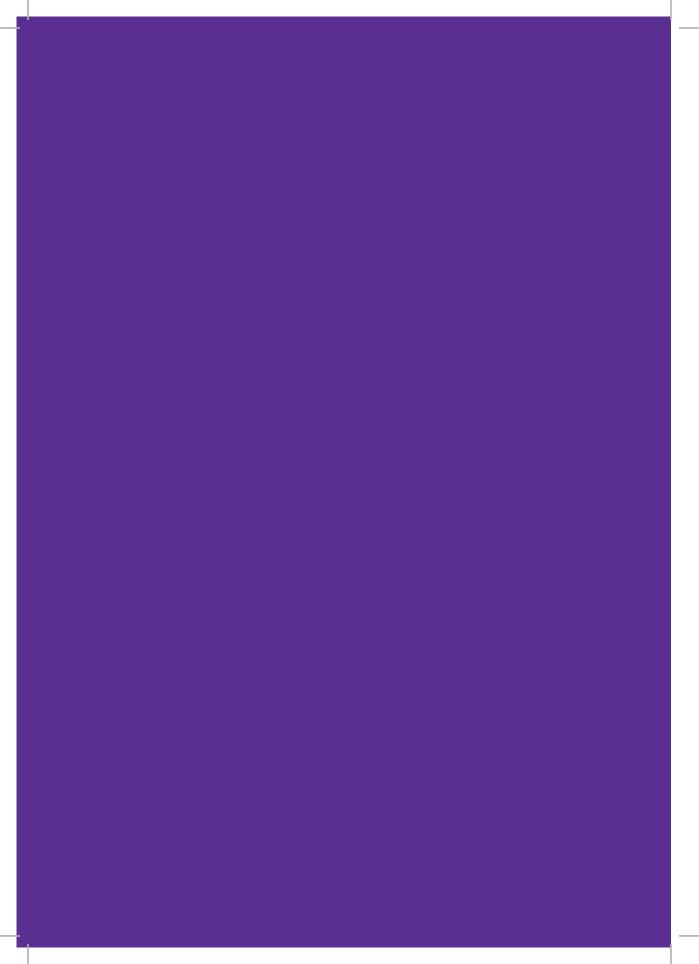
Aidan White, founder of the Ethical Journalism Network, argues that some journalistic values should be inserted into the "heart of media and information literacy work". While some of them don't apply outside journalism (e.g. impartiality), some are generally important for all communicators in the public sphere, namely accuracy and fact-based communications, humanity and respect for others, and transparency and accountability (white, n.d.).

Brussels-based organization, Lie Detectors, deploys journalists and media experts to teach news literacy to schoolchildren (Lie Detectors, n.d.). Educational games may help: a group of researchers created a "fake news game", in which participants have to create false news, and demonstrated that it helped them later to recognise them, acting as a sort of vaccine (Roozenbeek & van der Linden, 2018). Public libraries are also crucial (Huysmans, 2016). Media literacy is not needed just for young people: a study demonstrated that older people are more likely to share false news (Guess, Nagler & Tucker, 2019).

danah boyd (styled lowercase), founder of Data & Society Research Institute, has argued that a misguided media literacy may be dangerous. In 2017 she wrote: "too many students I met were being told that Wikipedia was untrustworthy and were, instead, being encouraged to do research." However, the result of the combination of the distrust of media sources and of this encouragement to do one's own research was that "the message that many had taken home was to turn to Google and use whatever came up first." Personal experience is being trusted over expertise. This leads her to ask provocatively if media literacy "backfired", arguing that "standard educational approaches" won't work and there is no easy solution (boyd, 2017).

The situation in Europe is not uniform. According to the 2019 edition of the Media Literacy Index, an annual publication by the European Policies Initiative of the Open Society Institute, "Northwest European countries have the best prerequisites to withstand the misinformation ramifications and the Southeast European most vulnerable to it, while the Central and Eastern European countries deteriorate faster than the rest in the index results". They noted that countries with higher media literacy scores tend to have higher trust in scientists and journalists (Lessenski, 2019).





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