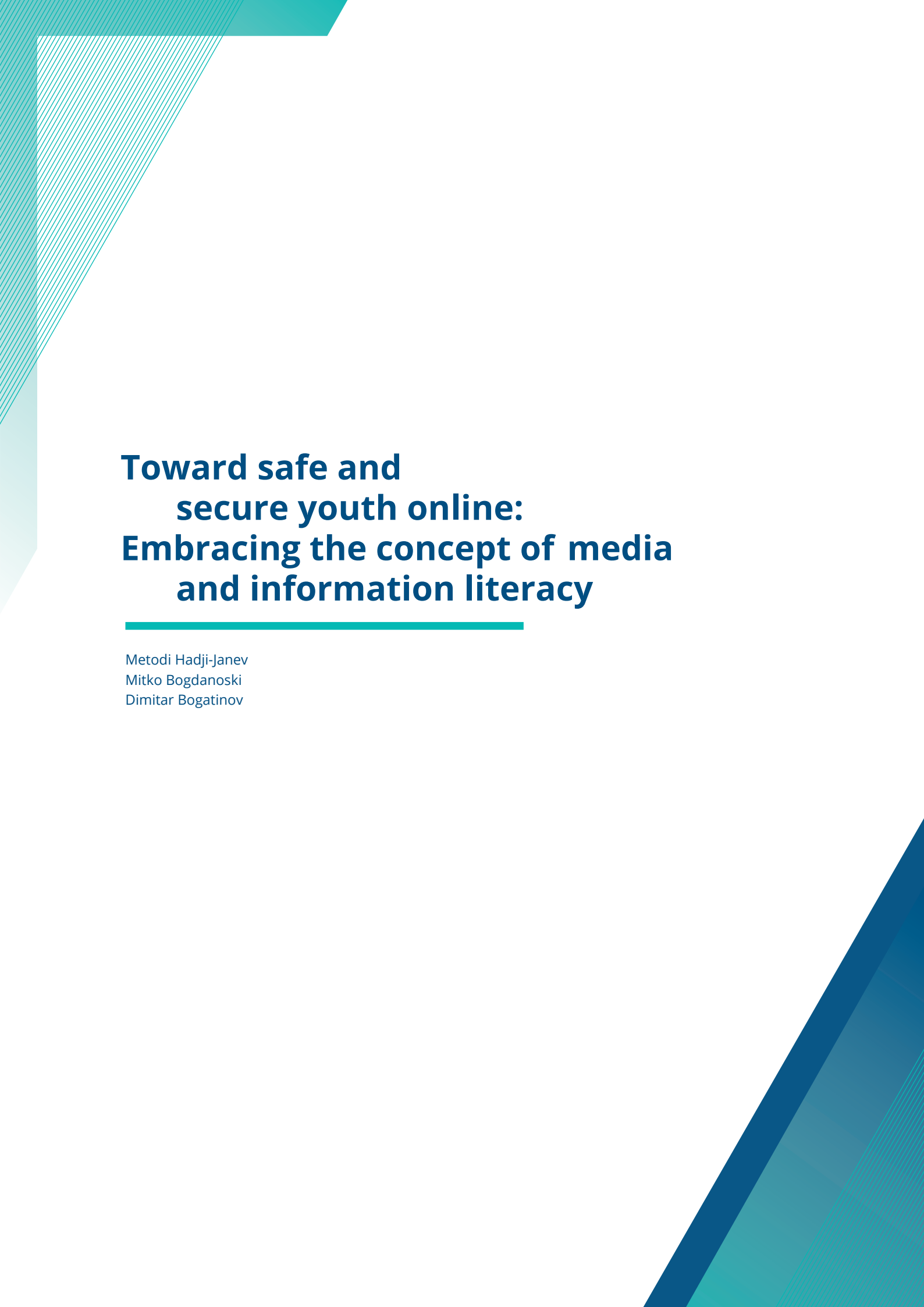


Toward safe and secure youth online: Embracing the concept of media and information literacy

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List of acronyms

AAAMS - Agency for Audio and Audiovisual Media Services

AI - artificial intelligence

BIRN - Balkan Investigative Reporting Network

ICT - Information and communication technologies

IL - Information literacy

IT - information technology

MIL - Media and information literacy

MIOA - Minister of Information Society and administration

ML - Medial literacy

MOSE - Ministry of Science and Education

OSAC - Overseas Security Advisory Council,

Executive summary

The ongoing digital transformation is changing the way we live faster than we think. Connecting digital and smart things into a system of systems generally called the Internet of things-(IoT) blends the online world with the real one. Modern information and communication technologies-ICT and social media applications bring a lot of benefits, improve our way of living and everything we do, open new horizons and opportunities. Youth almost instantly adopts the newest gadgets and unlike their parents are keen on utilizing ICT and social application in their everyday routine. Nevertheless, the ever-growing adoption of social networks, instant messages, and mobile communication leaves the door open to more subtle attacks - both of a technological and psychological nature.

Today it is widely accepted that ICT and social media could exploit the youth and affect them emotionally and psychologically. The convergence of the online and physical world is real and ongoing. This includes the emotional, social, economic, and political effects on our society and youth in particular. Consequently, different government sectors, local authorities, but also families are immersed in a transformative process that requires a different skillset in governing, crafting values, and raising a family.

To address these emerging challenges the UN, Council of Europe, the EU, as well as other regional and international organizations, but also many states, have decided to invest in promoting media and information literacy - (MIL) among youth. Improving MIL allows societies to mitigate negative effects while preserving positive aspects of using ICT and social media applications. Promoting media and information literacy - (MIL) enhance the knowledge-driven, inclusive, pluralistic, democratic, and open societies and limit negative residual effects from ICT and social media applications.

Following global trends, North Macedonia has also focused on citizens' literacy. These efforts, however, are not quite clear and it seems that they lack a conceptual framework. Two arguments confirm this observation. First, there is no normative definition of what constitutes MIL. Second, there are no definitions or explanations from where one could see the government's views (position) of what is media literacy (ML) or what is information literacy (IL) independently. Consequently, there are no signs that echo the ongoing trend and guidance provided by UNESCO and the EU to fuse the ML and IL into MIL. Moreover, despite some efforts to tackle and promote media and digital, online literacy among Macedonian youth, we cannot speak of a coherent and holistic approach led by the Government in this direction.

Striving, among others, for greater online security, Cyber Security, Crisis Management and Corporate security initiative-C3I and Konrad Adenauer Stiftung – North Macedonia, have joint forces and initiated a research study to address the quest for media and information literacy improvement among the Macedonian youth. Our study included desc and field research and analysis.

The study, among others, has analyzed current trends of using ICT and social media applications by Macedonian youth and compared this with the global trends. We investigated how ICT and social media affect Macedonian youth and provided some conclusions explaining the reasons for such outcomes. To test our findings and recommendations we have organized a webinar (summaries are provided in Annex 1). The webinar included representatives from all relevant stakeholders important in promoting media and information literacy among Macedonian youth and enhanced our argument and conclusions. We found that although ICT and social media applications have opened new opportunities for

Macedonian youth, they have also reshaped some of the traditional constructs of communications and with that, they affect the way of how values and traditions are being developed accordingly.

ICT and social media ecosystems have changed and are still changing the “game”, and the “playing field” via Macedonian cyberspace. Through different devices and IoT children and youth are directly accessible at any time of day by peers, corporations, and even extremist/(or government proxies) recruiters and predators. Our combined field and desc research showed that there are 53% active social media users in North Macedonia. In 2019 there were 2.24 million cell phones, which was about 107% of the population. Interestingly, the number of social media users in North Macedonia has increased by 55 000 (+5.3%) between April 2019 and January 2020. Youth between 14-30 years is the most dominant actors in Macedonian cyberspace using social media via different ICT. According to the Government officials, while “in Europe, over 70% of children and young people had at least one social media account in 2019, during the same period almost 75% of the population in North Macedonia aged 15-19, had a profile on social networks”. Our study also showed that the majority of those who use social media access to their accounts from smartphones.

These results explain why instant messaging, virtual networking on social media applications, ability to instantly share content via web-camera and remotely to engage in real-time interaction with significant others, just as it happens with traditional face-to-face interaction drive youth to migrate to social media and online communication. Social media platforms thus compensate for the genuine need for socialization in real life. At the same time, the ability of individuals and entities to circumvent parental or school authorities' oversight in the user-content shaping environment is constantly evolving. Without really understanding the consequences youth could either participate directly in harassment activities or support these activities by sharing different content. Hence, without proper media and information literacy Macedonian youth is immersed in a highly user-content shaping

environment. Hence, Macedonian families and Government (through the school authorities) efforts to introduce their own values to Macedonian youth are highly contested.

Today, mental and emotional effects from ICT and social media, but also mis-, dis-, and mal-information, including criminal activities, political activism, and spread of violent extremism and hate speech are not unknown for Macedonian youth. We have witnessed that the spread of mis-, dis-, and mal-information and other forms of dubious or false information can and are misleading Macedonian youth many of whom will become or already are registered voters that make decisions. Moreover, we have also witnessed that ICT and social media applications have become an innovative way for extremists or state proxies to recruit, radicalize and cause cascade effects that undermine our democratic governance, citizens' safety, and national security. While debates and researches have thus far focused on political, economic, and psychological factors of these negative effects, there is a growing interest that remains unaddressed in North Macedonia to also focus on human vulnerability to online threats identified as shortfalls in digital/information literacy.

Macedonian youth need strong literacy skills to participate constructively in a pluralistic democracy facing complex domestic, regional, and global challenges. In addition, relevant stakeholders need the capacity to sustain youth in this endeavor. The best way to accomplish this is to utilize the UNESCO suggestion to develop a strategy that will address the issue by converging the approach of ML and IL into MIL. Therefore, we have used this approach in suggesting a valuable contextual framework that can enhance our youth in seeking and exploiting opportunities by using ICT and social media applications while remaining safe from negative residual effects that will continue to evolve. Moreover, this study represents a small step in raising the voice for coherent and tangible efforts designed to build relevant stakeholders' capacities to improve Macedonian MIL.



Research framework

Research framework

1.1. Understanding the problem

The ongoing digital transformation is an irreversible process that accelerates the convergence of the online and physical world. As elsewhere information and communication technologies – (ICT) and social media applications changed the way people in North Macedonia access information, share information, interact and communicate, accomplish daily routines, seek solutions and conduct business. This consequently affects peoples’ perception, habits, approach, opinion (for daily communal and social issues on a local, national, regional, and global level, but also in a political context) commodity and influence actions and reactions. Hence, the transformative process in the world we leave is real and ongoing.

Different constructs between the two worlds – cyber and physical (for example, anonymity), nevertheless, pose some regulatory and consequential (emotional, social, economic, and political) effects in our national physical world. The velocity and the volume of information and interaction exchange, along with the different (intrinsic) online-based futures (will also be elaborated later) may and usually cause both positive and negative effects. These residual effects affect

Macedonian citizens, groups, and the whole nation across different sectors of society. Consequently, different government sectors are immersed in a transformative process that requires a different skillset in governing ICT and social media applications’ exploitation.

The importance of addressing threats to youth (and to the overall society in general) has been widely recognized across the political elites and government of the Republic of North Macedonia. However, despite this widely expressed recognition, it seems that there are no concrete coherent, and systematic actions in addressing these challenges.¹ On the other hand, several investigative reports, studies, and op-eds recently have already pointed out that ICT and social media applications pose a virality of opportunities for malicious actors to exploit vulnerable populations in general and Macedonian youth in specific.

Understanding these challenges, the UN,² Council of Europe,³ the EU,⁴ as well as other regional and international organizations, but also many states, have put serious efforts to mitigate negative effects from ICT and social media applications.

1 The former ruling political elite (former government) and the current government at least during PR events have expressed promising awareness about the growing and evolving threat vectors to the Macedonian youth via ICT and social media applications. For example, the work on the issue by the former Government please see: Government of the Republic of North Macedonia, (2012), “Government to launch project against internet abuse of children”, available at: <https://vlada.mk/node/4148?ln=en-gb>; But, also see: Government of the Republic of North Macedonia, (2019), “Proposed Plan for Resolute Action against the Spreading of Disinformation”, available at: <https://vlada.mk/node/4148?ln=en-gb>

2 See for example, Recommendations addressed to UNESCO Adopted by the Vienna Conference „Educating for the Media and the Digital Age“, 1999, Available at: <http://www.nordicom.gu.se/en/clearinghouse/recommendations-addressed-unesco-mediaeducation>

3 Parliamentary Assembly, (June 27, 2000), “Assembly debate, Report of the Committee on Culture and Education”, Recommendation 1466 (2000), Council of Europe, available at: <http://www.assembly.coe.int/nw/xml/XRef/Xref-XML2HTML-en.asp?fileid=16811&lang=en>

4 The Council of Europe, (2016), “European Ministerial Conferences on Mass Media Policy and Council of Europe Conferences of Ministers

These tailored efforts, however, are crafted under frameworks that allow governments to preserve and stimulate positive aspects of ICT and social media. Thus, focusing and investing in promoting media and information literacy - (MIL) to enhance the knowledge-driven, inclusive, pluralistic, democratic, and open societies, have become a norm across the EU.⁵

Following global trends, North Macedonia has also focused on citizens' literacy. These efforts, however,

are not quite clear and it seems that they lack a conceptual framework. Two arguments confirm this observation. First, there is no normative definition of what constitutes MIL. Second, there are no definitions or explanations from where one could see the government's views (position) of what is media literacy (ML)⁶ or what is information literacy (IL) independently.⁷ Consequently, there are no signs that echo the ongoing trend and guidance provided by UNESCO and the EU to fuse the ML and IL into MIL.⁸

1.2. Our argument

Negative effects that ICT and social media applications can have on youth have caught, various governments and academic communities' attention. This is understandable, giving that smartphones and social media ecosystems have changed the "game", and the "playing field". Now, through devices, children and youth are directly accessible at any time of day by peers, corporations, and even extremist/(or government proxies) recruiters and predators.⁹ The ability of individuals and entities to circumvent parental or school authorities' oversight is constantly evolving. Families seeking to introduce their own values to their children are facing new

challenges, for which many are unprepared. Without really understanding the consequences youth could either participate directly in harassment activities or support these activities by sharing different content. The spread of mis-, dis-, and mal-information and other forms of dubious or false information are misleading voters-a fear that has inspired government actions to address the problem in many countries.¹⁰ Moreover, ICT and social media applications have become an innovative way for extremists or state proxies to recruit, radicalize, and cause cascade effects that undermine democratic governance, citizens'

- 5 Recommendations addressed to UNESCO Adopted by the Vienna Conference „Educating for the Media and the Digital Age“, 1999, Available at: <http://www.nordicom.gu.se/en/clearinghouse/recommendations-addressed-unesco-media-education> Also see for example: Hobbs Renee, (1998), "The seven great debates in the media literacy movement", *Journal of Communication*, available at: <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1460-2466.1998.tb02734.x>; Also see Johnston, B., & Webber, S. (2003)
- 6 See European Commission, (November 29, 2019), "Media literacy and safe use of new media, Republic of North Macedonia", Eacea National Policies Platform,
- 7 Some countries have already followed EU guidance on ML and have developed certain policies. See for example, Tanriverdi Belgin, Apak Özlem, (2010), "Analysis of Primary School Curriculum of Turkey, Finland, and Ireland in Terms of Media Literacy Education", available at: <https://files.eric.ed.gov/full-text/EJ889203.pdf>

- 8 See for example the result from the project sponsored by the EU and led by UNESCO. See: UNESCO, (May 27, 2014), "First European Media and Information Literacy Forum", available at: <https://en.unesco.org/events/first-european-media-and-information-literacy-forum>
- 9 Media Literacy Now, (January, 2020), "U.S. Media Literacy Policy Report 2020", the report is available at: <https://medialiteracynow.org/u-s-media-literacy-policy-report-2020/>
- 10 Jackson Chris, (September 5, 2018), "Fake news, filter bubbles, post-truth and trust: A study across 27 countries", Ipsos, available at: <https://www.ipsos.com/en-us/news-polls/Fake-News-Study>.

safety, and national security.¹¹ While debates and researches have thus far focused on political, economic, and psychological factors of these negative effects, there is growing interest to also focus on human vulnerability to online threats identified as shortfalls in digital media literacy.¹²

To effectively counter negative effects and preserve the positive aspects that ICT and social media applications have on the youth the Government should focus on improving media and information (digital, online) literacy. The reasoning behind (as we will also see later) stems from the fact that MIL usefully captures the skills and competencies needed to successfully navigate a fragmented and complex information ecosystem.¹³

The common assumption of this approach, therefore, is that those with greater MIL tend to consume false or dubious stories in a more critical manner, mitigating the influence of negative effects on society. As the practice shows, even under ideal conditions, most people struggle to reliably evaluate the quality of information they encounter online because they lack the skills and contextual knowledge required to effectively distinguish between high and low-quality news content. Hence, investing in MIL is an ongoing trend that urges Macedonian authorities to take concrete actions. Our focus as we have already indicated is to address the part of the MIL efforts that need attention, i.e. negative impacts of ICT and social media applications that exploit youth's vulnerabilities.

MIL is a developing area where many new terms

emerged but also fused with other similar terms. Online harassment, disinformation campaigns, and online radicalization are three areas that have a converging starting point (require user literacy to comprehend malicious information and online attempts via ICT and social media) and diverging negative effects (ranging from emotional and mental health problems to building cognitive perceptions and positions and taking political actions including extreme behavior and violence). These growing threats that already affect Macedonian youth via ICT and social media applications so far have not been addressed in a coherent and holistic manner. Online harassing activities (cyberbullying, sexual harassment, or online/cyberstalking, etc.) are not defined and specifically regulated. Mis-, dis-, and mal-information are also not specifically incriminated and there are no accepted (at national level) definitions about these terms. The same goes for online radicalization - there is no nationally accepted definition and the Government efforts to address the issue are not clear. All of these areas are under development and there is only official recognition of the problem.

Before we address the emerging threats that exploit Macedonian youth's vulnerability it is worth providing some working definitions. This will provide a working framework for the research and findings that follow. We also expect that these definitions will not only help the reader to understand the findings and claims but will also contribute to helping Government authorities to establish a more systematic approach in addressing emerging challenges from ICT and social applications that have a negative impact on Macedonian youth.

11 See more in: N. Grinberg, K. Joseph, L. Friedland, B. Swire-Thompson, D. Lazer, (2019), "Fake news on Twitter during the 2016 US presidential election", *Science*, pp. 363, 374-378;

12 See for example: Melki Jad, (2017), "Media, Youth, & Radicalization: The Role Of Media & Digital Literacy In Countering Violent Extremism", Lebanese American University, available at: https://www.researchgate.net/publication/336533271_THE_ROLE_OF_MEDIA_DIGITAL_LITERACY_IN_COUNTERING_VIOLENT_EXTREMISM/link/5da4d6b045851553ff91f88d/download

13 Eshet-Alkalai Yoarm, (2004), "Digital literacy: A conceptual framework for survival skills in the digital era", *Journal of Educational Multimedia Hypermedia*, 13, pp. 93-106, available at: <https://www.learnlib.org/primary/p/4793/>

1.3. Working definitions

Information and communications technology - is an extensional term for information technology (IT) that stresses the role of unified communications.¹⁴ The abbreviation also refers to the integration of telecommunications (telephone lines and wireless signals) and computers, as well as necessary enterprise software, middleware, storage, and audiovisual systems, that enable users to access, store, transmit, and manipulate information.¹⁵

Social media applications - Every web-based-application that supports information publishing and sharing (text, video, audio, photo), the building of personal profiles, connecting to a community, and searching within the community is considered as a social media application.¹⁶

Social media - is a computer-based technology that facilitates the sharing of ideas, thoughts, and information through the building of virtual networks and communities. By design, social media is internet-based and gives users quick electronic communication of content. Content includes personal information, documents, videos, and photos. Users engage with social media via computer, tablet, or smartphone via web-based software or web application, often utilizing it for messaging.¹⁷

The Internet of things (IoT) - describes the network of physical objects—"things"—that are embedded with sensors, software, and other technologies for the purpose of connecting and

exchanging data with other devices and systems over the Internet.¹⁸ The definition of the Internet of things has evolved due to the convergence of multiple technologies, real-time analytics, machine learning, commodity sensors, and embedded systems. There are a number of serious concerns about dangers in the growth of IoT, especially in the areas of privacy and security, and consequently, industry and governmental moves to address these concerns have begun including the development of international standards.

Youth - The term refers to a group of young people usually between 14-30, or 16-35 years old. The EU youth strategy does not include an official definition of the specific period in life when a person is considered to be 'young'. The understanding of which age groups are considered to be 'young people' varies from one Member State to another, and from one period in time and one socioeconomic context to the other. As an instrument for implementing the EU youth strategy, the Erasmus+ programme targets young people between 13 and 30.¹⁹ The dashboard of EU youth indicators (Eurostat, n.d.) operates with three 5-year categories where possible, covering the age range 15-30. The USAID office in North Macedonia, on the other hand, considers that the youth refers to young people aged 15-17 years old.²⁰ When using the term, we will refer to the young people from North Macedonia aged 16-30 years old.

14 Murray, James (December 18, 2011), "Cloud network architecture and ICT - Modern Network Architecture", TechTarget, available at: <https://web.archive.org/web/20170920133800/http://itknowledgeexchange.techtarget.com/modern-network-architecture/cloud-network-architecture-and-ict/>

15 FOLDOC, (September 19, 2008), "Information and communication technology from", available at: <https://foldoc.org/Information+and+Communication+Technology>

16 IGI Global, "What is Social Media Application", available at: <https://www.igi-global.com/dictionary/social-media-development-usage-challenges-and-opportunities/43791>

17 Dollarhide Maya & Drury Amy, (September 6, 2020), "Social Media Definition", Investopedia, available at: <https://www.investopedia.com/terms/s/social-media.asp>

18 Rouse Margaret, (2019), "internet of things (IoT)", IOT Agenda, available at: <https://internetofthingsagenda.techtarget.com/definition/Internet-of-Things-IoT>

19 Theben Alexandra, Porcu Federica, Peña-López Ismael, Villanueva Lupiáñez Francisco, (2018), "Study on the Impact of the Internet and Social Media on Youth Participation and Youth Work", European Commission, available at: <https://op.europa.eu/en/publication-detail/-/publication/b7fbaf6c-5e36-11e8-ab9c-01aa75ed71a1>

20 USAID, (September 30, 2020), "YOUTH EMPLOYABILITY SKILLS (YES) NETWORK", available at: <https://www.usaid.gov/macedonia/fact-sheets/youth-employability-skills-yes-network#:~:text=The%20program%20targets%20students%20in,and%20the%20City%20of%20Skopje.>

Literacy – “Literacy is the ability to identify, understand, interpret, create, communicate, and compute, using printed and written materials associated with a varying context. Literacy involves a continuum of learning in enabling individuals to achieve his or her goals, develop his or her knowledge and potential to participate fully in community and wider society”²¹

Media Literacy (ML) - Media literacy examines the ways in which the media environment facilitates, shapes, enables, and, in some cases, constrains engagement with information and the communication process.²²

Information Literacy (IL) - Information Literacy focuses on the purposes of engaging with information and the process of becoming informed. It is strongly associated with the concepts of learning to learn and making decisions through its emphasis on defining needs and problems, relevant information, and using it critically and responsibly/ethically. Thus, information literacy is acknowledged as a dynamic thinking process and a set of competencies that is not totally dependent on the presence of particular information systems and technologies, but which is greatly influenced by these²³

Media and Information Literacy – (MIL) considers all forms of media and other information providers such as libraries, archives, museums, and the Internet irrespective of technologies used. This term has been promoted by UNESCO as an attempt to converge ML and IL into one concept. Information Literacy and Media Literacy are traditionally seen as separate and distinct fields. UNESCO’s strategy brings together these two fields as a combined set of competencies (knowledge, skills, and attitude) necessary for life and work today.²⁴ Just as in information literacy,

the individual is able to critically analyze the content or information he or she encounters. Media literacy extends beyond the confines of information literacy to address, for example, the representation of social and ethnic groups, and viewpoints and opinions expressed in media, including those that people engage with for entertainment. In other words, while the concept of information literacy focuses on the information user as an autonomous decision-maker, citizen and learner, media literacy examines the ways in which the media environment facilitates, shapes, enables, and, in some cases, constrains engagement with information and the communication process, be it for intentional or indirect learning, social participation or simply for entertainment.

There are three crucial common denominators between media literacy and information literacy:

- › the cross-cutting role that ICTs play in both concepts, blurring the lines between the two;
- › both concepts emphasize the need for the critical evaluation of information and media content; and
- › both concepts underscore the need for ethical use of information.²⁵

Internet safety or "e-safety" - includes knowing about one’s Internet privacy and how one’s behaviors can support a healthy interaction with the use of the Internet.²⁶

Social media addiction - social media addiction or social media overuse, is a proposed form of psychological or behavioral dependence on social media platforms, also known as Internet addiction disorder, and other forms of digital media overuse.²⁷

21 UNESCO (2005), Aspects of Literacy Assessment: Topics and issues from the, UNESCO Expert Meeting. 1012 June, 2003. Paris, France: UNESCO, available at: <https://unesdoc.unesco.org/ark:/48223/pf0000140125>

22 UNESCO, (2013), Media and Information Literacy: Policy and Strategy Guidelines”, p.48, available at: <http://www.unesco.org/new/en/communication-and-information/resources/publications-and-communication-materials/publications/full-list/media-and-information-literacy-policy-and-strategy-guidelines/>

23 Ibid, p. 47

24 Ibid

25 Ibid, p.48

26 Common sense education, “Internet safety”, available at: <https://www.common-sense.org/education/digital-citizenship/internet-safety>

27 Hogan, Marjorie; Strasburger, Victor C. (12 April 2018). “Social Media and New Technology: A Primer”. *Clinical Pediatrics*. 57 (10): 1204–1215, available at: <https://journals.sagepub.com/doi/10.1177/0009922818769424>

Social comparison - refers to the tendency of using other people as sources of information to determine how we are doing relative to others (ability comparison), or how we should behave, think, and feel (opinion comparison).²⁸ These comparisons provide us with information about our own as well as other people's abilities, social standing, and performance, allowing us to navigate the social world smoothly.

Virtual identity - refers to the development of one's integrated self in online environments; a construct that may differ from real-life identity.²⁹

Online predators - are individuals who commit child sexual abuse that begins or takes place on the Internet.³⁰

Online harassment - involves directing derogatory or offensive comments at targeted individuals repeatedly. It may come in the following forms: cyberbullying, cyberstalking, trolling, or spreading hate.³¹

Cyberspace - is a concept describing a widespread, interconnected digital technology. The term entered the popular culture from science fiction and the arts but is now used by technology strategists, security professionals, government, military, and industry leaders and entrepreneurs to describe the domain of the global technology environment, commonly defined as standing for the global network of interdependent information technology

infrastructures, telecommunications networks, and computer processing systems.³² Others consider cyberspace to be just a notional environment in which communication over computer networks occurs.³³

Cyberbullying - is bullying via the Internet or other ICT, involving offensive or malicious messages, e-mails, chat room or message board comments or, even more extreme, websites built with harmful intent towards an individual or certain group of people.³⁴ Cyberbullies also use mobile phones to take embarrassing pictures of others or send hurtful SMS or MMS messages. The World Health Organization recognizes bullying behavior as "the intentional use of physical and psychological force or power, threatening or actual, against oneself, another person, or against a group or community that either result in or has a high likelihood of resulting in injury, death, psychological harm, mal-development, or deprivation".³⁵

Cyberstalking - is the use of the Internet or other electronic means to stalk or harass an individual, or a group.³⁶

Trolling - is the act of causing problems on the Internet by starting arguments or upsetting people, by posting inflammatory, extraneous, or off-topic messages in an online community such as a newsgroup.³⁷

28 Festinger Leon, (1954), "A theory of social comparison processes Hum Relations", 7, pp. 117-140, available at: <https://journals.sagepub.com/doi/10.1177/001872675400700202>

29 Yee Nick and Bailenson Jeremy, (2007), "The Proteus effect: The effect of transformed self-representation on behavior", Human Communication Research, vol. 33, no. 3, pp. 271-290, available at: <http://web.stanford.edu/~bailenso/papers/proteus%20effect.pdf>

30 Williams, Pete (February 3, 2006), "MySpace, Facebook attract online predators", NBC News, available at: <https://www.nbcnews.com/id/wbna11165576>

31 The Council of Europe, (2017), "Internet Literacy Handbook", Ch-5, available at: <https://rm.coe.int/internet-literacy-handbook/1680766c85>

32 "Cyberspace", Definition of cyberspace in US English by Oxford Dictionaries, available at: <https://www.lexico.com/en/definition/cyberspace>

33 Strate Lance, (1999), "The varieties of cyberspace: Problems in definition and delimitation", Western Journal of Communication. 63 (3): 382-83, available at: <https://www.tandfonline.com/doi/abs/10.1080/10570319909374648>

34 The Council of Europe, (2017), Ch-5,

35 World Health Organization, (2002), "World report on violence and health: summary", Geneva, available at: https://www.who.int/violence_injury_prevention/violence/world_report/en/summary_en.pdf

36 "Cyberstalking", Oxford University Press

37 "Definition of troll", Collins English Dictionary, available at: <https://www.collinsdictionary.com/dictionary/english/troll>

Fake News - in the most general form is untrue information presented as news.³⁸ Nevertheless, despite it has been widely used, there is a growing number of institutions, including Governments that refrain from using this term. In October 2018, the British government decided that the term "fake news" will no longer be used in official documents because it is "a poorly-defined and misleading term that conflates a variety of false information, from genuine error through to foreign interference in democratic processes." This followed a recommendation by the House of Commons' Digital, Culture, Media and Sport Committee to avoid the term.³⁹ Some studies suggest that *"it is woefully inadequate to describe the complex phenomena of information pollution"*.⁴⁰ According to these views, *"The term has also begun to be appropriated by politicians around the world to describe news organizations whose coverage they find disagreeable. In this way, it's becoming a mechanism by which the powerful can clamp down upon, restrict, undermine, and circumvent the free press."*⁴¹

We believe that it is important to make a distinction between three different types: mis-, dis-, and mal-information. In this line we accept the suggestion made by Wardle and Derakhshan and the dimensions of harm and falseness, we describe the differences between these three types of information:

Mis-information is when false information is shared, but no harm is meant.

Dis-information is when false information is knowingly shared to cause harm.

Mal-information is when genuine information is

shared to cause harm, often by moving information designed to stay private into the public sphere.⁴²

Clickbait - a form of false advertisement, uses hyperlink text or a thumbnail link that is designed to attract attention and to entice users to follow that link and read, view, or listen to the linked piece of online content, with a defining characteristic of being deceptive, typically sensationalized or misleading. Put simply, it is a headline that tempts the reader to click on the link to the story. But the name is used pejoratively to describe headlines that are sensationalized, turn out to be adverts, or are simply misleading.⁴³

Radicalization - there is no universally accepted definition of radicalization. For the purpose of this document, in simple terms, radicalization is identified as the application of ideas, beliefs, or goals that should trigger an action to drastically change what is considered normal and every day. In the Macedonian dictionary, radicalization is described as: "Applying root, decisive measures in resolving issues"⁴⁴ (with accomplishing a goal). Radicalism as a noun signifies a political view.⁴⁵

Online radicalization - therefore, refers to the same process that is ongoing and conducted via ICT and social media applications.

Radicalization generally involves **recruitment** - (selection and acquisition) and **indoctrination**. Therefore, we would say that those who radicalize try to select/attract an individual (**that is recruiting**), so he/she affiliates (**that is indoctrination**) with the need for some change or solving some problem. The methods and ways of recruiting are usually

38 Higdon Nolan, (August 15, 2020), "The Anatomy of Fake News: A Critical News Literacy Education", University of California Press, available at: <https://www.ucpress.edu/book/9780520347878/the-anatomy-of-fake-news>

39 Murphy Margi, (October 23, 2018), "Government bans phrase 'fake news'", available at: <https://www.telegraph.co.uk/technology/2018/10/22/government-bans-phrase-fake-news/>

40 Wardle Claire & Derakhshan Hossein, supported by: Burns Anne & Dias Nic, (2017), "Information Disorder: Toward an Interdisciplinary Framework for Research and Policy making", Council of Europe, p. 5

41 Ibid

42 Ibid

43 Frampton Ben, (September 14, 2015), "Clickbait - the changing face of online journalism", BBC, available at: <https://www.bbc.com/news/uk-wales-34213693>

44 Digital dictionary of the Macedonian language, "radicalism" <http://www.makedonski.info/show/%D1%80%D0%B0%D0%B4%D0%B8%D0%BA%D0%B0%D0%B%D0%B8%D0%B7%D0%B0%D0%BC/%D0%BC>

45 Дигитален речник на македонскиот јазик, „радикализам“ <http://www.makedonski.info/show/%D1%80%D0%B0%D0%B4%D0%B8%D0%BA%D0%B0%D0%B%D0%B8%D0%B7%D0%B0%D0%BC/%D0%BC>

through conversations and persuasion, telling, and teaching. Changing or resolving certain issues can be manifested through a change in belief, change in behavior, or a change in the means for resolving issues – the use of violence. Behavior that seeks change (deep fundamental changes of things considered normal) is called radical. Radicalization can originate from:

- › Political nature (i.e. changing the social structure - rather than the democratic system as we now have, to abolish elections and have a dictatorship).
- › Social nature (i.e. when members of sport fan clubs seek to make a change or achieve a goal - to make (persuade) other sports fans support their club.
- › Religious nature (i.e. when members of a particular religion want to impose a change that will make their religion dominant).

Radicalization can promote behavior that tends to make the change without **violence and/or through violence**.⁴⁶ Making changes peacefully, through debate and tolerance for differences, without hate speech or violence is not prohibited.

Any action promoting a change of the generally accepted situation-**through violence is prohibited**. We must fight against radicalization that promotes violent extremism and terrorism together. When the discussions arise in regards to radicalization, which promotes violent extremism and terrorism, we will refer to this as **violent radicalization**.

Keeping in mind the previously stated examples, violent radicalization can be of:

- › Political nature (i.e. changing the social system - rather than a democratic system, as currently in place, elections should be abolished and to take the form of dictatorship) - **In the effort to change the social system, violent methods or violence against those who think differently are directed**.
- › Social nature – (i.e. sports fans that join support groups when they would like to cause a change - make other supporters and fans of the sports cheer for the same club **and against all others who do not, violence is promoted**).
- › Religious nature (when members of a particular religion want to impose a change that will make their religion dominant), **and against believers in other religions, violence is promoted**.

Violent radicalization is often associated with religious fundamentalism, hate speech, violent extremism, and/or acts of terrorism.

Religious fundamentalism - is an approach to promote and practice religion. Almost every religion has a fundamental part. The practice of fundamentalism can but does not necessarily lead to violent radicalization.

Hate speech - is either a spoken or written attitude intended to humiliate, disturb, create fear or incite violence against one or more persons because of their personal characteristics or affiliation to a particular group or community. This speech is directed against those who are seen as different.⁴⁷ **The radicalization process can often contain hate speech**.

Violent extremism - is when an individual/group expresses a belief that supports or incite violence and/or take acts of violence to achieve a goal (social, ideological, religious, or political).⁴⁸

46 Schmid, A. P. (2013-03-27). "Radicalisation, De-Radicalisation, Counter-Radicalisation: A Conceptual Discussion and Literature Review". The International Center for Counter-Terrorism – The Hague (ICCT).

47 More on hate speech can be found in the Recommendation N. (97) 20 of the Committee of Ministers of the Council of Europe on hate speech from 1997, available at: http://www.coe.int/t/dghl/standardsetting/media/doc/cm/rec%281997%29020&exmem_EN.asp

48 See more in UNESCO's Manual on violent extremism UNESCO (2016), "A Teacher's Guide on the Prevention of Violent Extremism" <http://unesdoc.unesco.org/images/0024/002446/244676e.pdf>, or in the Instruction issued by the Australian Government, (2020), "Living Safe Together", available at: <https://www.living-safetogether.gov.au/> and <https://www.livingsafetogether.gov.au/get-the-facts/Pages/default.aspx>

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2

**The impact of information
communication technologies and
social media on Macedonian youth**

The impact of information communication technologies and social media on Macedonian youth

Modern Information and communication technologies – ICT and social media applications have become an integral part of our lives. The convergence of cyber- and physical space has been easy and maybe most efficiently utilized by Macedonian youth. According to the data portal's information (compiled from different credible sources and lastly updated January 2020), the Republic of North Macedonia has 58% urbanization, 81% of the populace uses the internet. There are 53% active social media users, and a fantastic 2.24 million cell phones, which is about 107% of the population.⁴⁹The same portal indicates that the number of social media users in North Macedonia has increased by 55 000 (+5.3%) between April

2019 and January 2020. Though the age group was not specified our research indicates that youth between 14-30 years is the most dominant actors in Macedonian cyberspace using social media via different ICT. For example, according to the former Minister of Information Society and administration-MIOA, while "in Europe, over 70% of children and young people had at least one social media account in 2019, during the same period almost 75% of the population in North Macedonia aged 15-19, had a profile on social networks.⁵⁰ The majority of those who use social media access to their accounts from smartphones.⁵¹

2.1. General perspectives on why youth is more prone to ICT and social media and how these technologies and applications affect their social activism

Numerous independent studies conclude that young people tend to be more adaptive to new technologies and that this ability complies with young people's needs. That is to use social platforms and to engage in real-time interaction with significant others, just as it happens with traditional face-to-face interaction. Using

novel approaches allow young people to implement/ replicate offline activities through new media.⁵² Others have observed that the use of the internet, and social networks, in particular, stems from their usual and adjoining social circles outside their families - their friends and peers.⁵³ Hence,

49 Data from DataReportal, (February 18, 2020), "Digital 2020: North Macedonia", by Simon Kemp, available at: <https://datareportal.com/reports/digital-2020-north-macedonia>

50 Ministry of Internatl Affairs, (October 16, 2019), "Spasovski, Mančevski and Ademi, part of the event Traveling Classroom" (Original: "Спасовски, Манчевски и Адеми дел од настанот „Патувачка училиница“: Само со хоризонтален пристап ќе се зајакнат капацитетите и свесноста за сајбер безбедност од најмала возраст"), available at: https://mvr.gov.mk/vest/10216?fbclid=IwAR3OghzMIJB9-s90iHIS2bvWqqUIRT-f1m-wNV7jffD_Ni7m6WxPvYh3-z8Y

51 Data from DataReportal, (February 18, 2020), "Digital 2020: North Macedonia", by Simon Kemp, available at: <https://datareportal.com/reports/digital-2020-north-macedonia>

52 Mc Kerlich, R., Ives, C. & McGreal, R. (2013), The Effect of Social Network Sites on Adolescents' Social and Academic Development: Current Theories and Controversies, *International Review of Research in Open and Distance Learning*, Vol. 14, No. 4, pp. 90-103

53 Sánchez-Navarro, J. & Aranda, D. (2012), "Messenger and social network sites as tools for sociability, leisure and informal learning for Spanish young people", *European Journal of Communication*, Vol. 28, No. 1, pp.67-75, available at: <https://journals.sagepub.com/doi/abs/10.1177/0267323111432411>

the high level of integration of these technologies into youth's daily life is an online extension of their offline life. Instant messaging, virtual networking on social media applications, ability to instantly share content via web-camera and remotely to engage in real-time interaction with significant others, just as it happens with traditional face-to-face interaction drive youth to migrate to social media and online communication. Social media platforms thus compensate for the genuine need for socialization in real life.⁵⁴

The social media applications and the internet's magnetism for youth also come from anonymity and easy access that overcome some of the social barriers in real life. Anonymity is especially a handful of marginalized groups. These groups for various reasons are isolated from social and cultural interactions outside their circles. Easy access on top of it offers almost unlimited choices. For example, expanding horizons in terms of where to be and where to go. Furthermore, the analysts who emphasize the positive aspects of connectivity build on the argument that traditional conceptions of the digital divide in terms of access may no longer be viable because youth is able to connect and participate in online social communities.⁵⁵

Although ICT and social media applications have opened new opportunities, they have also reshaped some of the traditional constructs of communications and with that, the values and traditions developed accordingly. The cyber construct that has emerged from horizontal (rather than vertical family-based) relations and equal opportunities in the virtual world

did not reflect the traditional- physical relations and postures. It produced new socio-demographic traits emanating from the specific purpose for which the ICT and social applications were created. Among others, searching for information and obtaining knowledge about specific topics have changed.

ICT and social media to a certain degree wiped out traditional family capital-enhancing activities such as searching for information, shaping perceptions, incorporating values and pricing traditions while advancing knowledge.⁵⁶ Parents usually lagging in web-based skills are not the traditional opinion-makers for youth or source for an answer.⁵⁷ Instead, youth is alone in exploring the user-generated environment. The problem with this, however, is that online participation and content creation require a more extensive skill set than mere consumptive internet uses.⁵⁸

Social networking in general reflects the idea of the internet, which is communication in a user-friendly environment. This, nevertheless, unintentionally blends social networking with user-generated content. Many applications, such as Facebook, Flickr, Blogger, or YouTube are built on these premises. While surfing requires only consumption, online communication and content creation require political knowledge and participation.⁵⁹ This elevates the challenge to a whole new level giving that the youth is not just collecting information alone but participate in a highly influential complex environment.

54 Mckerlich, Ives & McGreal, (2013)

55 Ahn June, (2011), "Digital Divides and Social Network Sites: Which Students Participate in Social Media?", *Journal of Educational Comput*

56 Hargittai Eszter & Walejko Gina, (2008), "The participation divide: Content creation and sharing in the digital age", *Information, Communication & Society*, pp. 239-256, available at: <https://www.tandfonline.com/doi/abs/10.1080/13691180801946150>

57 Hoffmann, C.P., Lutz, C. & Meckel, M. (2015), "Content creation on the Internet: a social cognitive perspective on the participation divide", *Information, Communication & Society*, Vol. 18, No. 6, pp. 696-716, available at: <https://www.alexandria.unisg.ch/238646/>

58 Hargittai Eszter & Walejko Gina, (2008),

59 Östman Johan (2012), "Information, expression, participation: How involvement in user-generated content relates to democratic engagement among young people", *New Media & Society*, Vol. 14, No. 6, pp.1004-1021, available at: <https://journals.sagepub.com/doi/10.1177/1461444812438212>



3

**From the opportunity to
disruption, how ICT and social media
applications may become a threat to
the Youth in North Macedonia**

From the opportunity to disruption, how ICT and social media applications may become a threat to the Youth in North Macedonia

Despite the original idea of communication and socialization ICT and social media applications have become venues for civic and political engagement including protests, and other contextual forums.⁶⁰ In these regards, the EU commissions concluded that various forms of political participation and social engagement based on the internet and social media challenge the view of young people's disenchantment.⁶¹ Thanks to the interconnectivity Macedonian youth may experience lifestyle, values, and self-expression, consume and participate in social and political activism, boycotts, political comedy, self-organizing protests, and discussing politics online. This access to a large range of information and political conversation extends far beyond their parents, teachers and geographically close peers, and potential participation.⁶²

Social network sites have become an important open channel for communication about political action and have been thus associated with the mobilization of other newcomers.⁶³ The problem

in this line arises from the fact that the ongoing digital transformations have not just changed the channels to access information, but also the nature of the information itself. Today information has different forms of presentation, a more graphic component, and is usually accompanied by strong symbolic content. This affects the way of receiving it (comfortably and practically in real-time), processing it (putting in the background reflection and the spectacular impact), the effects on the recipient (reactive, with a strong sentimental load), on how to transmit it, and redistribute it.⁶⁴

Moreover, another important characteristic of a social media platform that might have unintended effects on youth for good and bad is inclusiveness. The opportunity to be included, and the sense of belonging to a community alike, usually stimulate participation.⁶⁵ The changed construct where communication takes place (considering anonymity as well) between individuals and groups allows dialogue to be democratized,

60 To compare Macedonian youth with EU trends see for example (Freelon, Wells & Bennett (2013).

61 European Commission (2015), Council Resolution on encouraging political participation of young people in democratic life in Europe (2015/C 417/02), Official Journal of the European Union, Retrieved 13 September 2017, from [http://eur-ex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:42015Y1215\(02\)&from=EN](http://eur-ex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:42015Y1215(02)&from=EN)

62 Middaugh Ellen, Bowyer Benjamin, Kahne Joseph (June 24, 2016), "U Suk?! Participatory Media and Youth Experiences With Political Discourse", *Youth & Society*, Vol. 49, No. 7, pp. 902-922, available at: <https://journals.sagepub.com/doi/abs/10.1177/0044118X16655246>

63 Clark, L.S. (2015), "Participants on the Margins: #BlackLivesMatter and the Role That Shared Artefacts of Engagement Played Among Minoritized Political Newcomers on Snapchat, Facebook, and Twitter", *International Journal of Communication*, Vol. 10, pp. 235-253, available at: <https://journals.sagepub.com/doi/full/10.1177/1354856520933747>

64 Álvaro A & Rubio R, (2016), "ICT in political participation of young people", Instituto de la Juventud, available at: https://issuu.com/injuve/docs/tic_participacionpolitica

65 Dumitrica Delia. (October 30, 2014), "Imagining engagement: Youth, social media, and electoral processes", *Convergence: The International Journal of Research into New Media Technologies*, Vol. 22, No. 1, pp. 35-53, available at: <https://journals.sagepub.com/doi/10.1177/1354856514553899>

usually without control and lose accountability.⁶⁶ In this articulation, social media appears as both the tool that produces engagement and the space where this engagement unfolds. Put in the context of content shaping social platforms become a perfect platform to influence information and produce cascade effects. The technology and connectivity along with the accustomed behavior of sharing for influence or other reasons allow information (good and bad) to be multiplied exponentially.⁶⁷

Experts and academics have largely addressed the disruptive effects of the internet and social media. Mental and emotional effects from ICT and social media, but also mis-, dis-, and mal-information, including criminal activities, political activism, and spread of violent extremism and hate speech are not unknown for Macedonian youth. Therefore, we will briefly address some of these residual negative effects separately.

3.1. Negative mental and emotional effects that ICT and social media may have on Macedonian youth

The negative mental and emotional effects that ICT and social media may have on the Macedonian youth has only lately caught wider attention. Though there are some good analyses provided by social and health workers, including communication experts and academics these addresses are sporadic and without a systematic approach (research or a study).⁶⁸

Experts agree that negative mental and emotional effects from ICT and social media may cause or be produced by cyber harassment activities (ex. Cyberbullying), negative self-image and body image, social media addiction, and less time spent doing healthy, real-world activities. In this line, a

growing number of studies try to provide some reasoning whether or not extensive use of ICT and social media increased depression among the youth.⁶⁹ Additional surveys of US adolescents, for example, show that teen depressive symptoms and suicide rates increased between 2010 and 2015, especially among females. Researchers noted that the increase in social media and overall screen use between those years could account for these changes.⁷⁰ A 2015 CNN study of 13-year-old teenagers and social media found that participants who checked Facebook or other networking sites between 50 and 100 times a day were 37 % more distressed than those who checked just a few times a day. Those who

66 García-Galera María-Carmen, Del-Hoyo-Hurtado Mercedes & Fernández-Muñoz Cristóbal, (June, 2014), "Engaged Youth in the Internet, The role of social networks in Social Active Participation", *Comunicar*, Vol. 22, No. 43, pp. 35–43, available at: <https://www.mendeley.com/catalogue/5ffb3593-2092-3b2b-b2bc-dee24870346c/>

67 Tang Grey & Lee Frances L.F., (2013), "Facebook Use and Political Participation: The Impact of Exposure to Shared Political Information, Connections with Public Political Actors, and Network Structural Heterogeneity", *Social Science Computer Review*, Vol. 31, No. 6, pp. 763–773, available at: <https://journals.sagepub.com/doi/abs/10.1177/0894439313490625?journalCode=ssce>

68 A good example of these effects may represent a story supported by the EU, and presented on the Modern technologies web portal, discussing the modern technologies' effects on the youth. Please see: Modern Technologies MK, (November 18,

2019), "Parents must learn how to protect their children from overuse of the internet" (original: Современи технологии МК, (Ноември 18, 2020), „Родителите мора да научат како да ги заштитат децата од прекумерна употреба на интернет“), available at: <https://sovremenitehnologii.mk/ekspertite-za-internetot/>

69 Baker A David & Algorta Perez Guillermo, (October 12, 2016), "The Relationship Between Online Social Networking and Depression: A Systematic Review of Quantitative Studies", *Cyberpsychol Behav. Soc. Netw.* 2016 Nov, 19(11), pp. 638-648

70 Jean M. Twenge, Thomas E. Joiner, Megan L. Rogers, Gabrielle N. Martin, (November 14, 2017), "Increases in Depressive Symptoms, Suicide-Related Outcomes, and Suicide Rates Among U.S. Adolescents After 2010 and Links to Increased New Media Screen Time", available at: <https://journals.sagepub.com/doi/abs/10.1177/2167702617723376?journalCode=cpxa>

checked more than 100 times a day were 47 % more distressed on average.⁷¹

Domestic experts seem to agree with these findings. The Psychiatric professor at the national University Psychiatric clinic elaborated on how ICT and social media such as Facebook, Twitter, LinkedIn, Instagram, etc. are responsible for negative health effects chief among is an addiction, which later results in other health problems.⁷² A neuropsychologist Tina Vaskov asserted that addiction to ICT and social media causes a state of “Cognition” which distracts children from physical social engagement.⁷³

Another way how ICT and social media may undermine Macedonian youth’s health which is worth mentioning is the effect of social comparison. Spending more time on social media youth tend to compare themselves by observing the lives and images of their peers. For example, this includes looking at profiles on which peers post about their healthy habits, fun social events, or accomplishments. According to the 2018 Pew Research Center report on the effect of social media on teenagers, 43 % of teenagers say they feel pressure to only post content on social media that makes them look good to others. Furthermore, 26% of teens say these sites make them feel worse about their own life.⁷⁴

An additional similar effect causing negative outcomes that ICT and social media can have on Macedonian youth is creating a virtual identity. While this effect not always may have a negative

context self-presentation and self-disclosure— sharing their opinions, beliefs, and preferences, including nudity may result in consequential negative effects. Online predators (which will be addressed below) but also peer friends (sharing content for fun) can usually unintentionally cause significant harm and emotional pain in many different ways.⁷⁵ This is especially important since youth is curious and eager to social drama without really comprehending the negative effects that their action could cause. For example, the above-mentioned Pew Research Center’s report found that some 45 % of teens say they feel overwhelmed by all the drama on social media. And about the same number say that they often or sometimes unfriend or unfollow others on social media. In fact, 52 percent say that cyberbullying directed at them or others were their reason for unfriending. Such online bullying is a significant negative effect of social media on teenagers.⁷⁶

Cyberbullying and similar online harassment activities are other important effects that require greater attention in North Macedonia.⁷⁷ There are several various platforms in which cyberbullying, and online sexual harassment can occur with youth shifting to new technologies faster than ever. According to Newport academy study cyberbullying methods may include: Posting comments about a teen online that are cruel, hurtful, or embarrassing; Posting an embarrassing picture or video of a teenager; Starting rumors about a teen online that damage their reputation;

71 Hadad Chuck, (October 13, 2015), “Why some 13-year-olds check social media 100 times a day”, CNN Health, available at: <https://edition.cnn.com/2015/10/05/health/being-13-teens-social-media-study/index.html>
 72 Modern Technologies MK, (November 18, 2019),
 73 Ibid
 74 Anderson Monica And Jiang Jingjing, (November 29, 2018), “Teens’ Social Media Habits and Experiences”, Pew Research Center, available at: <https://www.pewresearch.org/internet/2018/11/28/teens-social-media-habits-and-experiences/>

75 Williams, Pete (February 3, 2006)
 76 Anderson Monica And Jiang Jingjing, (November 29, 2018),
 77 Ministry of Internatl Affairs, (October 16, 2019),

Ask nasty questions that are designed to hurt their feelings; Posting hateful slurs or comments about a teen's race, religion, or ethnicity online; Threatening online to hurt a teen or encouraging them to do self-harm or to kill themselves; Posing as someone else online to solicit personal or false information about a teenager, or even impersonating a teenager online; Doxing (an abbreviated form of the word "documents")—online harassment in which a teen's personal information is made public, including addresses, social security numbers, credit cards, and phone numbers (this can also lead to identity theft).⁷⁸ The same study provides some incentives about the places where cyberbullying occurs among teens may include the following: Social media platforms like TikTok, Facebook, Twitter, Instagram, Snapchat, and YOLO (a question-and-answer app that teens cyberbullies use to shame and embarrass vulnerable adolescents, by asking hurtful questions about them; Text messaging on cell phones and other devices, including both one-on-one messages and group messaging; Gaming forums or during online video game playing, where teens play gaming characters in multiplayer formats; Instant messages delivered via social media messaging features, smartphone apps, and other messaging services; Anonymous messaging apps and sites like "Kik", "Sarahah", and "Askfm", which allow for messages and feedback without identifying the source; Temporary messaging and picture apps like "Telegram" and "Snapchat"; etc..⁷⁹

Two recent cases that have shaken the Macedonian public involving sexual content sharing activities of Macedonian youth from smaller cities are worth mentioning in this context as well. One unfortunate case is the so-called "Public room" – a "Telegram" chat group with more than 7400 members, which was used to share explicit photos and videos from young girls.⁸⁰ The "Public room" was closed and all members were deleted after the group administrator - a teenager with a codenamed "Medo" reported himself to the police, and two girls reported the case. The members of the group demanded nude photos of girls and demanded photos of girls with specific names and surnames. The Ministry of Interior, Department for Computer Crime and Digital Forensics identified all of the users and their telephone numbers in order to determine the other persons who had administrative and moderating roles. One other similar case involving videos and photos with explicit content with girls and women from the municipality Gevgelija and the surrounding area. The nude content and pictures were shared via "Viber" and "Messenger".⁸¹ Usually, after discovery, these groups are closed, but only for a while when new ones are created. Also, there are a lot of fake profiles that are used for blackmails, impersonations, and similar activities. These and other similar events can have a negative mental and health impact on victims.

78 All seen in: Newport Academy, (March, 2020), "How to Recognize Teen Cyberbullying", available at: <https://www.newport-academy.com/resources/restoring-families/teen-cyberbullying/>

79 Ibid

80 Jordanovska Meri, (January 26, 2020), "Pornographic group "Public room" is closed, The members are opening the new One", A1On, (Original „Порнографската група „Јавна СОба“ е затворена, членовите отвораат нова“ А1Он), available at: <https://a1on.mk/macedonia/pornografskata-grupa-javna-so-ba-e-zatvorena-chlenovite-otvoraat-nova/>

81 Independent (July 8, 2020), "Pornographic videos and photos with girls and women from Gevgelija county shared via Viber and Messenger", (Original: Независен (Јули 8, 2020), „Порнографски видеа и фотографии со девојки и жени од Гевгелиско препраќани на Вибер, Месинџер“), available at: <https://nezavisen.mk/pornografski-videa-i-fotografii-so-devojki-i-zheni-od-gevgelisko-preprakani-na-viber-mesindzher/>

3.2. The negative effects of mis-, dis-, and mal-information spread across the ICT and social media and their impact on Macedonian youth

3.2.1. General views about mis-, dis-, and mal-information spread across ICT and social media

The traditional news model based on professionalism, ethical and trained journalists, using and citing credible sources with the follow-up fact-check before publication are gone. Deliberately design mis-, dis-, and mal-information from amusing us to confusing us have caused worldwide negative effects.⁸² While disinformation (purposeful manipulation) dates back to Adam and Eve what is new is the ability of its dissemination (the 24/7 news cycle and our access to it). The convergence of physical and cyberspace allows disinformation as a tool of persuasion and weapon of influence to reached new heights. While the access to news from, mainstream media channels and social media to radio and podcasts is easy, it is also easier than ever for producers of these news or information/ disinformation to reach us (at any hour of the day or night on any one of our many Internet-connected devices - the internet of things-IoT such as smartphone, tablet, laptop, smartwatch, Alexa, Siri and more).

These negative effects have particularly been amplified with the trend of digital transformation and the ability to use machines behind spreading mis-, dis-, and mal-information. Today, it's fairly easy for conspiracy theories and rumors to spread through channels that are multifold, messages that are continuous, and an environment that often overlooks contradictory information.⁸³ As a result, social media platforms have proved to be fertile ground for inflammatory disinformation that has an emotional, social, economic, and political impact on society.

The psychological effects of mis-, dis-, and mal-information are maybe best to explain in the American Psychological Association study.⁸⁴ According to this study, two-thirds of Americans are stressed out about the future of the country, and the constant consumption of news was pinpointed as a major contributor. In an Op-Ed published in the Washington Post, therapist Steven Stosny, Ph.D., asserted that ...*"For many people, continual alerts from news sources, blogs and social media, and alternative facts feel like missile explosions in a siege without end"*.⁸⁵ A lot of negative feelings like anxiety, hopelessness, despair, sadness is fueled by being tuned in to the 24-hour news cycle. Thus, as Stosny observed with so much misinformation being posted as truth, we are in an even more entrenched era of "headline stress disorder," where "breaking news is breaking us".⁸⁶

Mis-, dis-, and mal-information can also have major societal impacts because in general, information shapes our worldview. We make important decisions based on the information we have. We form an idea about people or a situation by obtaining information. So, if the information we saw on the Web is invented, false, exaggerated, or distorted, we won't make good decisions. The spread of anti-vaccination misinformation on social media, (and its implications for public health and the global fight against COVID-19) is a textbook example of how misinformation can have serious real-world effects, particularly while we tackle the virus.⁸⁷ Recently, conspiracy theories relating to the supposedly

82 See for example: Shu Catherine, (January 7, 2020), "Why the world must pay attention to the fight against disinformation and fake news in Taiwan", TechCrunch, available at: <https://techcrunch.com/2020/01/07/why-the-world-must-pay-attention-to-the-fight-against-disinformation-and-fake-news-in-taiwan/>

83 Erdelyi M. Karina, (2019), "The Psychological Impact of Information Warfare & Fake News", PSYCOM, available at: <https://www.psycom.net/iwar.1.html>

84 American Psychological Association, (February 15, 2017), "Many Americans Stressed about Future of Our Nation, New APA Stress in America, Survey Reveals", available at: <https://www.apa.org/news/press/releases/2017/02/stressed-nation>

85 Stosny Steven, (February 6, 2017), "He once called it 'election stress disorder.' Now the therapist says we're suffering from this", The Washington Post, available at: <https://www.washingtonpost.com/news/inspired-life/wp/2017/02/06/suffering-from-headline-stress-disorder-since-trumps-win-youre-definitely-not-alone/>

86 Ibid

87 SCL, (August 10, 2020), "The real-world effects of 'fake news' – and how to quantify them", SCL ORG, available at: <https://www.scl.org/articles/12022-the-real-world-effects-of-fake-news-and-how-to-quantify-them>

harmful health effects of the 5G cellular network technology, including a link to the COVID-19 pandemic have flooded the internet and social media. These mis-, dis-, and mal-information had caused serious impact and caused violent behavior against social order but also with economic effects.

In fact, the persuasion tactics using the internet and social media have become big business. While these tactics are employed for profit by corporate or enterprises, they can also provoke a reaction that will have economic effects. One such example is the arson attacks on cell phone towers across Europe and the USA.⁸⁸ The cascade effects, nevertheless, may also have cause long term effects, by, perhaps, slowing or preventing economic growth. Namely, the casual effect of cell phone technology on economic growth is well documented.⁸⁹ A similar relationship may apply to the more modern 5G standard and the storm of conspiracy theories proliferated through social media and the internet.⁹⁰

Politically, however, the disinformation and modern-day fake news have been well developed under the concept of deception. In fact, in his famous work, *The Art of War*, Sun Tzu in Rule 18 wrote that “All warfare is based on deception”.⁹¹ While waging a war is usually considered to be a military business and is implied that it should be run by people in uniform, the modern-day conflict defies this logic. Both state and non-state actors, in fact, are exploiting modern technologies including the internet and social media to achieve their strategic ends by exploiting

the “soft targets”.⁹² Hence, social media has “become a battlefield where information itself is weaponized”.⁹³ The anonymity allows one to whatever he/she/they want and be whomever he/she/they want. The advent of the Internet opened a new arsenal of tools that can be used for manipulation including online hacking, aliases, bots, unattributed websites filled with fabricated content, social media avatars posting fake news. Moreover, in a liberalized World empowered individuals and groups specialized in national security matters, previously working for governments, are offering their services for commercial and national security purposes as well.⁹⁴ Living in a highly-connected world, it doesn't take much to tip over into instability or even chaos.

Building on the ability to provoke emotional effect, thus, state and non-state actors are purposefully manipulating information to elicit feelings of anger or suspicion against the Government and its policies. This often can cause an inflammatory reaction and motivates people (mostly youth) to take violent actions to “make things write”, but also can cause anxiety, and even depression by distorting our thinking.⁹⁵ As a result, across the world, we are seeing youth being radicalized and anger performing extreme actions. People have lost trust in their governments and the overall social order, without really understanding the content that motivates them against, but with the ability to undermine democratic order, stability, and prosperity. These global trends have a significant effect on Macedonian youth.

88 BBC, (June 8, 2020), “Coronavirus: Man jailed for 5G phone mast arson attack”, available at: <https://www.bbc.com/news/uk-england-merseyside-52966950>

89 See, for example, Eastwood David, (March 10, 2005), “Calling across the Divide”, *The Economist*, available at: <https://www.economist.com/finance-and-economics/2005/03/10/calling-across-the-divide>

90 Andrews M. Travis, (May 1, 2020), “Why dangerous conspiracy theories about the virus spread so fast — and how they can be stopped”, *The Washington Post*, available at: <https://www.washingtonpost.com/technology/2020/05/01/5g-conspiracy-theory-coronavirus-misinformation/>

91 Tzu Sun, “*The Art of War*”, text as written by Sun Tzu in the translation of Lionel Giles, first published in 1910

92 The term “soft targets” usually refers to civilian sites where unarmed people congregate in large numbers, but not just the places the civilians themselves to. See for example Oxford

Dictionaries Online, “Soft target”, available at: https://www.lexico.com/en/definition/soft_target; or see: Forest James J.F., (2006), “Homeland Security: Protecting America's Targets”, Greenwood, p.36

93 See for example: Singer P.W., Brooking ET. (2018), “*Like War: The Weaponization of Social Media*”, Eamon Dolan/Houghton Mifflin Harcourt, New York

94 Entous Adam & Farrow Ronan, (February 11, 2019), “Private Mossad for Hire, Inside an effort to influence American elections, starting with one small-town race”, *The New Yorker*, available at: <https://www.newyorker.com/magazine/2019/02/18/private-mossad-for-hire>

95 The American Psychiatric Association, (May 7, 2018), “Baby Boomers Report Greatest Increase in Anxiety”, New York, available at: www.psychiatry.org/newsroom/news-releases/americans-say-they-are-more-anxious-than-a-year-ago-baby-boomers-report-greatest-increase-in-anxiety

3.2.2. The impact of mis-, dis-, and mal-information via ICT and social media on Macedonian youth

Small developing countries like the Republic of North Macedonia are not immune to global trends of mis-, dis-, and mal-information. Although general trends of mis-, dis-, and mal-information are easily recognizable via the internet and social media in North Macedonia, as elsewhere the effects are specific to the culture and internal social dynamics.

The information described by Macedonian society's usage of ICT and participation in social media communications resonates that society is widely exposed to the global trends of disinformation. While mis-, dis-, and mal-information have the same effects as elsewhere (addressed above), the debate about the effects of disinformation has largely focused on the political context. To a certain degree, this is understandable given that the Republic of North Macedonia was in the disinformation focus twice in recent years both as a victim but also as a source – producer of mis-, dis-, and mal-information. Even though disinformation as a method - tactic was looming large via Macedonian cyberspace and have been responsible for online radicalization,⁹⁶ the US election in 2016,⁹⁷ the 2018 Referendum⁹⁸ and the Worldwide pandemic caused by COVID-19⁹⁹ have turned the World's attention into the country.

The trend of producing fake news discovered back in late 2016 and elaborated in 2017 reviled to the world the asymmetry behind the mis-, dis-, and mal-information via social media. Young

Macedonians, thousands of kilometers away from the US, were making money out of fake news about the American elections, almost effortless and at almost no cost comparing the big electronic and TV Media. This practice, however, has evolved and has been upgraded since then. Adjusting to the “clickbait trends” not just individuals but also enterprises chasing opportunities have utilized the practice of fabricating news and producing disinformation.¹⁰⁰ An investigative report published by BIRN explained how an advertising company from North Macedonia, allegedly forced by COVID-19 created an economic crisis, chased the opportunity to enter the disinformation campaign business.¹⁰¹ Hence, networks of fake social media pages, involving young Macedonians, have become the biggest culprit streaming the global web from North Macedonia.

Unlike the real journalism, that follows the information, an event, or a trend, the new normal (under which mis-, dis-, and mal-information operate) is to create the information. As a result, almost elsewhere the proliferation of unverified information, full of sensationalism, without the owner of the information (we are not sure who makes the news anymore) has become an attractive opportunity. The BIRN report has also revealed how young journalists have turned into mis-, dis-, and mal-information producers practicing “*Clickbait journalism as a career option*”.¹⁰² According to the testimony of a young

96 Hadji-Janev Metodi & Bogdanoski Mitko, (2015), “The Terrorist Threat to the Critical Information Infrastructure in South East Europe”, Future Access Enablers for Ubiquitous and Intelligent Infrastructures, Springer, available at: <https://www.springer-professional.de/en/the-terrorist-threat-to-the-critical-information-infrastructure-/6885392>

97 See for example: Subramanian Samantha, (February 15, 2017), “Inside The Macedonian Fake-News Complex, The Macedonian Teens Who Mastered Fake News”, Wired, available at: <https://www.wired.com/2017/02/veles-macedonia-fake-news/>

98 Crosby Alan, (September 24, 2018), “Macedonia's 'Fake News' Exports Now For Domestic Consumption”, Radio Free Europe, available at: <https://www.rferl.org/a/macedonia-s-fake-news-exports-now-for-domestic-consumption/29507388.html>

99 Dukic Simeon, (November 2, 2020), “COVID-19 Disinformation: Implications For Polarisation In Kumanovo”, available at: <https://strongcitiesnetwork.org/en/covid-19-disinformation-implications-for-polarisation-in-kumanovo/>

100 See for example how this trend is developing: Hennessey Jason, (April 22, 2020), “12 Surprising Examples of Clickbait Headlines That Work”, Search Engine Journal, available at: <https://www.searchenginejournal.com/12-surprising-examples-of-clickbait-headlines-that-work/362688/#close>

101 Cvetkovska Saska, (November 2, 2020), “Trump and COVID-19 Fuel North Macedonia's Clickbait Boom”, Balkan Insight, available at: <https://balkaninsight.com/2020/11/02/trump-and-covid-19-fuel-north-macedonias-clickbait-boom/>

102 Ibid

103 Ibid

104 Ibid

Macedonian journalist Lila Karjljeva, she and coworkers received sources on a daily bases, mostly Serbian tabloids like "Kurir", "Informer", "Blic" and others, with a task to camouflage the content's source spiced it with clickbait headlines and post it on the Macedonian website.¹⁰³ She claimed, that they "had a quota, like 50 articles in an eight-hour period", which "was so easy".¹⁰⁴ Even though this may look like a legitimate business the harmful influence of disinformation spread is beyond just the purely economic and ethical dilemmas.

Much of the underlying social media infrastructure promoting disinformation in North Macedonia is free or at least inexpensive, and therefore easy to set up anonymously. The problem, however, is three folded. First, to run a web portal one needs money. To pay for the clickbait, regardless of the cheap labor, one needs money too. Second, the source of the money is usually opaque, possibly fake advertising which raises the alarm and concerns of economic fraud.¹⁰⁵ It instigates economic crime allegations and money laundering or other illegal activities behind. Aside from consumers' deception and influence (allegedly economic crime) put in the political/geopolitical

context this morally questionable practice becomes a national security concern.¹⁰⁶

On a conference dedicated to tackling hybrid threats, the Minister of defense, Radmila Shekerinska Jankovska underlined that the "hybrid threats are present through the influence of information with black propaganda", which weakens the state logistics in important political processes and denigrating the institutions".¹⁰⁷ This recognition and the call for unity, however, did not prevent the alleged influence against public opinion and the negative results on the referendum that followed. Namely, during his visit before the referendum in 2018, then the US defense secretary James Mattis, publicly called Russian officials for meddling in North Macedonia, among others by stimulating disinformation. According to The New York Times, referring to Russians, Mattis underlined that "they have transferred money and they're also conducting broader influence campaigns".¹⁰⁸

Another looming concern with online mis-, dis-, and mal-information in North Macedonia is violent radicalization that leads to extremism among the youth.

3.2.3. From mis-, dis- and mal-information and manipulation to online radicalization

The EU-supported research study under the project "Passage4prevent: use of education to prevent youth online radicalization", in which C3I authors were involved, found that mis-, dis-, and mal-information are the main methods to attract, manipulate and radicalize youth in North Macedonia. Using social media, but also web pages and chat rooms on

different forum groups, malicious actors exploit youth online illiteracy and create lucrative content to purposefully manipulate the audience and produce intended impact. The study also found that video materials and gaming, along with the disinformation-promoting web portals generally funded from outside the country making disinformation, semi-truths, or

105 See for example: The U.S. Embassy in North Macedonia, (March 9, 2020), "Remarks of Ambassador Byrnes at "The Harmful Influence of Disinformation", available at: <https://mk.usembassy.gov/remarks-of-ambassador-byrnes-at-the-harmful-influence-of-disinformation/>

106 See for example:

107 Ministry of Defence, (September 12, 2018), "Minister Shekerinska from the International Conference "We are working together against hybrid threats": Democracy, interethnic relations and membership in NATO and the EU are strengthening the country in dealing with hybrid threats", available at:

<http://www.mod.gov.mk/?mainnews=ministerkata-sekerinska-od-megunarodnata-konferencija-rabotime-zaedno-protiv-hibridnite-zakani-demokratijata-meguetnickite-odnosit-clenstvoto-vo-nato-i-eu-ja-jaknat-dr&lang=en>

108 Santora Marc & Barnes E. Julian, (September 16, 2018), "In the Balkans, Russia and the West Fight a Disinformation-Age Battle", The New York Times, available at: <https://www.nytimes.com/2018/09/16/world/europe/macedonia-referendum-russia-nato.html>

biased information look reliable and credible.¹⁰⁹

While in recent years the attention in the Republic of North Macedonia has been fixated primarily on militant Salafism and foreign fighters, new forms of extremism via the internet and modern technologies have (re-)emerged. They include non-violent Salafism, ethnonational movements, and a neo-anti-Western right, mostly inspired by malignant foreign influences. Though these individuals and groups in North Macedonia may have different agendas and objectives underlying conditions including geopolitical context as we saw during the last referendum may foster the effect of “cumulative extremism,” or “reciprocal radicalization,” (where modern technology and internet play facilitating role).¹¹⁰ The potential, independently or in concert, to disrupt and even prevent some of the promising stabilizing desired processes (EU integration) should not be underestimated and require a proper approach.

The process of online violent radicalization via Macedonian cyberspace, as elsewhere, varies. Giving that this process is a person (target)-tailored it may follow specific patterns and dynamics or it can be sporadic and unique. Although there is no default model of how online radicalization occurs, experts and academics agree that violent radicalization usually follows a specific pattern. This can also be applied to violent online radicalization in The Republic of North Macedonia.

Like the offline, online violent radicalization, as elsewhere through the internet and social media occur through recruitment and indoctrination. During the recruitment process those who radicalize try to select/attract and isolate an individual (or a group)

so that he/she/they can affiliate (i.e. is/are being indoctrinated) with the need for some fundamental change or solving some problem by using violent means (methods). The indoctrination process often occurs through conversations (chats), persuasion, influence, affection, or teaching organized in closed or isolated forums. Indoctrination's end-state is to purposely cause the effect of strife for change by all means necessary (including violence where the victim/target is convinced that such methods are acceptable). The strife to change could be to change a belief, behavior, or a change in the means (methods) for resolving issues – resort to using violence.

The online violent radicalization usually begins with selection. Selection could be targeted and organized, or it could be spontaneous i.e. self-selection when one is being selected through his/her own behavior. Abusing modern technologies and accustomed social behavior (i.e. being comfortable to use modern communication technologies and applications as conventional communication in the physical world),¹¹¹ malicious individuals and groups have migrated online and have utilized certain methods to accomplish their goals. There are several ways how malicious groups and individuals can collect personal data from Macedonian citizens via the net. This may include:

Personal profile on any social applications platform Facebook, Twitter, Instagram, YouTube) and any other platform for communication and videos. The approach to collect this amount of data could be either by exploiting weak online profile protection or as simple as a random friendship request on Facebook. Different methods to identify prey may include certain hashtags on a social media post, etc.

109 The Policy recommendations and the study itself has passed the last reading prove procedures from the EU and Hedayah as supporters of the research and will be published soon. The research/recommendations were part of the Project “Passage4prevent: use of education to prevent youth online radicalization”, sponsored under the EU Strive for development programme.

110 Morina Engjellushe, Austin Beatrix, Roetman Jan Tim & Dudouet Véronique, (2019), “Community Perspectives on Preventing Violent Extremism, Lessons learned from the Western

Balkans”, Research Report, Berghof Foundation, available at: https://www.berghof-foundation.org/fileadmin/redaktion/Publications/Other_Resources/WB_PVE/CTR_PVE_WesternBalkans_Research_Report.pdf

111 See for example: Postmes Tom & Brunsting Suzanne, (2002), “Collective action in the age of the Internet: Mass-communication and online mobilization”, *Social Science Computer Review*, 20, 290-301, available at: <https://journals.sagepub.com/doi/10.1177/089443930202000306>

Collecting information through web pages and chat forums. Very often people with malicious intentions have well-organized websites that are attractive and filled with content intended for certain groups.¹¹² Information on these websites could be **true, partly true, and completely false.**¹¹³ Websites or chat forums may or may not be linked to the content that is the ultimate goal. These sites often feature content that is prepared in advance to test the potential victim.¹¹⁴ The collectors know how to measure individual reactions to certain content and to form a strategy for approaching the identified target based on that.

Collecting information by watching video content. Like with the other techniques for behavior monitoring, online predators for victims suitable for violent radicalization can exploit a person's browsing history for data collection. Most platforms have appropriate algorithms - programs that select what are you seeing on them. Videos have views, as well as the ability to see who's watching them. One can be very easily spotted if he/she watches videos that have content intended for violent radicalization/self-radicalization. Even though well indented some social applications' futures are user-friendly. For example, YouTube has developed guidelines on how to design a video based on the profile/habits of desired viewers or followers. It is very easy for predators to replicate this method to achieve their goal.¹¹⁵

Games. Games are another way predators can access personal information. Modern video games and downloaded gaming apps allow communication

in a specially designed chat room from one player to another and as such create the perfect opportunity for predators. For example, hiding behind a game character to generate a discussion within the form of hate speech, which in turn can easily get used as a form of aggression against groups/individuals from the physical world.¹¹⁶ Some studies claim that video games can stimulate violence among youth.¹¹⁷ According to some statistics, young people in our country prefer to play online, and 38% use the internet to play and download games, which is well above the European average of 34%.¹¹⁸

Understanding the above-mentioned points with reference to the selection process, once predators have located the target, those who abuse social media communication (Facebook, Twitter, Instagram, Snapchat, YouTube, etc.) and the internet, move to the next phase of **recruitment-approach and isolation.**

Recruiters usually are skillful in estimating when it is the right time to approach the selected target and how to establish communication. Initial communications are usually sporadic and **well-intentioned.** The goal at this stage is to develop or encourage different affiliations and gain confidence.¹¹⁹ Very often that affiliation can be general, to a movement or group that needs to build a common motto and develop the same objective. This means that **"person" and "the group-or the future team"** online can establish special relations due to **allegedly** similar interests, habits, experiences, views, opinions, and attitudes.

112 Weimann Gabriel, (2015) "Terrorism in Cyberspace: The Next Generation", New York, NY: Columbia University Press/ Washington, DC: Woodrow Wilson Center Press, ISBN: 978-0-231704496.

113 Several independent researchers confirm this, see for example: Brachman Jarret and Levine Alex, (April 13, 2011), "The World of Holy Warcraft", Foreign Policy, available at: <http://foreignpolicy.com/2011/04/13/the-world-of-holy-warcraft/>; or see: Behr Ines Von, Reding Anais, Edwards Charlie & Gribbon Luke, (2013); or: Sageman Martin, (2008), "Leaderless Jihad", University of Pennsylvania Press

114 Busher Joel (2015), "What part do social networks play in radicalisation?", RadicalisationResearch, available at: <http://www.radicalisationresearch.org/debate/busher-social-networks/>

115 See more at YouTube Creator Academy, accessed at: <https://creatoracademy.youtube.com/page/lesson/discoverability-analytics>

116 Selepak, Andrew, (2010), "Skinhead Super Mario Brothers: An Examination of Racist and Violent Games on White Supremacist Web Sites" Journal of Criminal Justice & Popular Culture, 17(1), 1-47, available at: <https://www.semanticscholar.org/paper/Skinhead-Super-Mario-Brothers%3A-An-Examination-of-on-Selepak/581e60a66b63bd58853d9c9304fb-81f25314e>

117 Hasan Youssef, Bègue Laurent, Scharrow Michael, & Bushman J. Brad (2013), "The more you play, the more aggressive you become: A long-term experimental study of cumulative violent video game effects on hostile expectations and aggressive behavior, Journal of Experimental Social Psychology, 49(2), 224-227, available at: <https://www.sciencedirect.com/science/article/abs/pii/S0022103112002259>

118 Игор Петровски, (јуни 29, 2018), „Младите и интернетот“, Капитал

119 Weimann Gabriel, (2015)

Much of these allegedly similarities are preset and tailored based on the profiling process. More often, during this period well-organized representatives of malicious groups present themselves as members who share similar views with you, and thus latently invest in confidence in "the room" – (chat room). The ultimate goal at this stage is to create a bond. For this purpose, they create closed chat-rooms. This is when the isolation starts.

To advance in this stage (isolation) the victim may receive an exclusive offer. An example could be a **proposal** for certain privileges, i.e. to become a member of the "**special ones**". Initially, a closed group is focused on building confidence and trust which is why the topics are usually general¹²⁰. Another method to isolate the target could be entrance by recommendation in selected or special groups where all the "hot topics" occur. These topics and "exclusive information" are only for the chosen one. Discussions **deliberately prepared** may usually include topics such as **rioting, changing the system, and hate speech** against those who are different. In general, closed groups have rules based on the "members only" principles. The goal at this stage is to **gain** a sense of belonging and the victim to feel **equal to the others**. Earning trust may also include compensation. A person (victim of the online violent radicalization) may be asked for a service (to do something) for which he/she will be rewarded. Once the trust is gained, the process of building a shared identity – indoctrination begins¹²¹.

During the indoctrination phase, certain wording and phrases dominate isolated chat-rooms to encourage a general position on concrete issues. There is no rule about how much time passes from the selection

process through the isolation to indoctrination. It can be a lengthy process, but it can also happen quickly. This process is done through manipulation - the belief that something that needs to be changed **must be done, even forcibly**. Manipulation aims to produce distortion and abuse of beliefs, political ideologies, and ethnic and cultural differences (attracting simple global views that divide the world into "us versus them"), thus urging the victims to seek answers¹²². Phrases like "us", "we", "together" and "our" are used to enhance belonging, compensate for misfortunes and tragedies and encourage tailored behavior through inflicted loyalty, and the quest for "**thrill and adventure**", "**power and control**" - to substitute and compensate real for the virtual world¹²³. **Based on profiling** in the isolated group during the indoctrination target can **express themselves, feel emotionally comfortable, and protected**. These groups create a circle of trust and when the victim feels safe he/she is ready to be implanted with the behavior that previously was forbidden or strange¹²⁴. Resort to violence often becomes a moral justification against all odds that have put the victim on the opposite pole of the polarized spectrum in the society.

Practice shows that the whole process described above may happen through "**self-radicalization**"¹²⁵. As mentioned earlier pre-prepared manipulative websites (full of mis-, dis-, and mal-information) can be found on the internet which use written texts, videos, and music to distort the facts and exert influence toward violent radicalization or violent self-radicalization. This is when a random victim reads literature, forums, and blogs from suspicious sources or you stream videos, audio recordings, or songs with content that has the purpose to violently radicalize.

120 Weimann, Gabriel, (2010), "Terror on Facebook, Twitter, and YouTube", *Brown Journal of World Affairs*, 16(2), 45-54, available at: <http://bjwa.brown.edu/16-2/terror-on-facebook-twitter-and-youtube/>

121 Some have called this process "identity fusion", see: Swann William Jr. & Buhrmester D, Michael (2015), "Identity Fusion", *Psychological Science*, Vol. 24(1) 52-57, available at: <https://labs.la.utexas.edu/swann/files/2016/03/52-57.pdf>

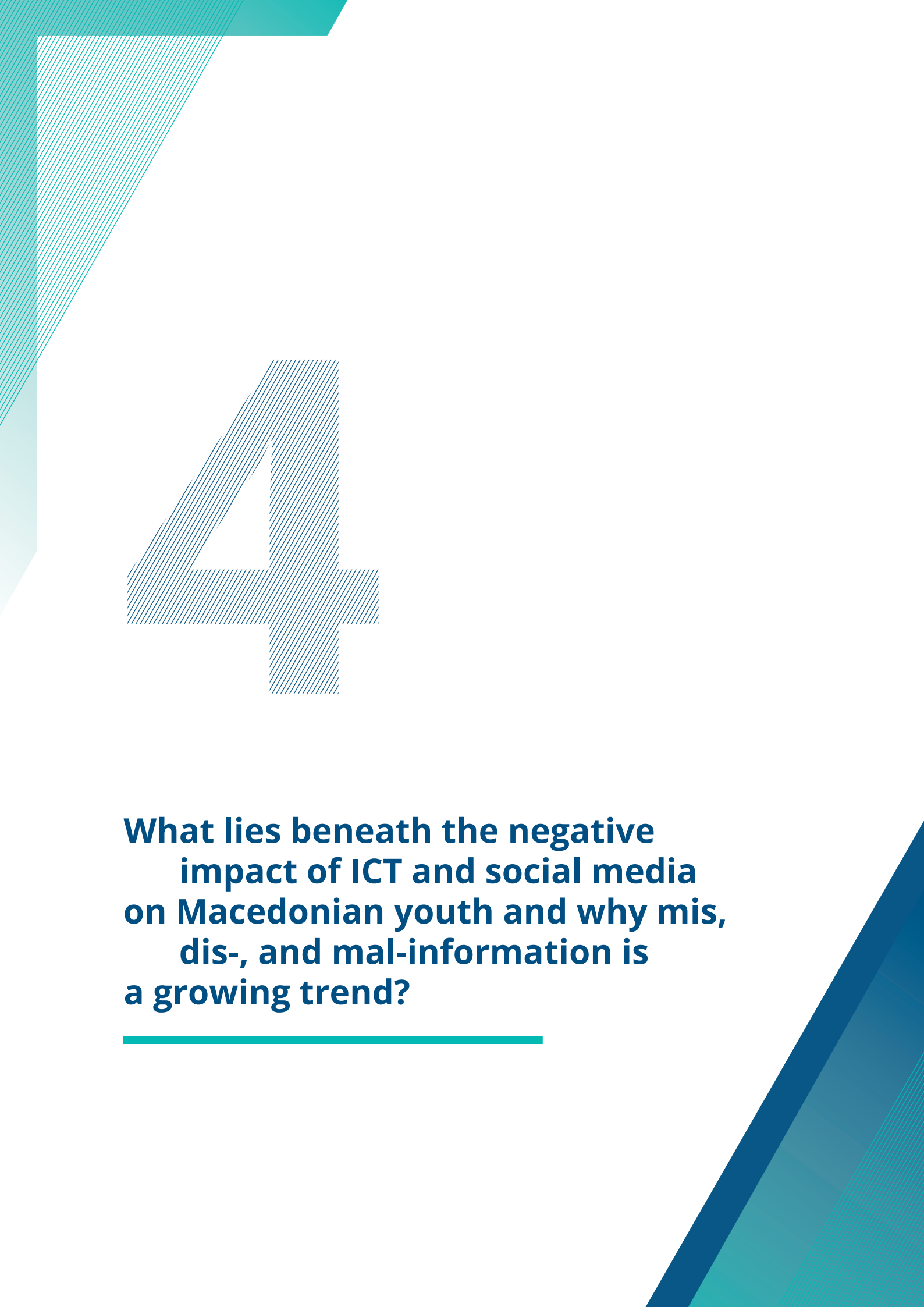
122 Ibid.

123 In the 2017 Atlantic Initiative research, the so-called human touch is always identified as the beginning of the radicalization, in the edition of Azinovic, V (ed) (2017). "Between Salvation and Terror: Radicalisation and the Foreign Fighter Phenomenon in

the Western Balkans. The Atlantic Initiative, p. 17, available at: http://www.atlantskainicijativa.org/bos/images/BETWEEN_SALVATION_AND_TERROR/BetweenSalvationAndTerror.pdf

124 In UNESCO's Manual, these factors are singled out as pull factors. See more in UNESCO, (2017), "Preventing violent extremism through education: a guide for policy-makers", available at: <https://unesdoc.unesco.org/ark:/48223/pf0000247764>

125 More about this can be found in: Sageman Martin (2008), "Leaderless Jihad: Terror Networks in the Twenty-First Century", Philadelphia: University of Pennsylvania Press



4

What lies beneath the negative impact of ICT and social media on Macedonian youth and why mis-, dis-, and mal-information is a growing trend?

What lies beneath the negative impact of ICT and social media on Macedonian youth and why mis-, dis-, and mal-information is a growing trend?

Modern ICT and social media (and this is especially true during the COVI-19) have created new ecosystems in North Macedonia changing the way we live. Modern technologies have influenced the way people communicate, interact, learn, work, receive information, express political opinions, or pursue wellbeing. As the statistics provided by DataReportal showed (please see above) the trend of using the internet, ICT, and social media is growing. Nevertheless, the growing technological boom in the country has not been matched by a parallel focus on secure and safe exploitation.

In addition to the general society online illiteracy, there are other factors that make fertile ground for the negative impact of ICT and social media and especially for the spread of disinformation, and fake news. Widely accessible, cheap, and sophisticated editing and publishing technology have made it easier than ever for anyone to create and distribute content via Macedonian cyberspace and active social platforms. Social media has also changed the way information is consumed. Social media has turned information consumption from private to public. The speed at which the information/mis-, dis-, and mal-information are distributed has changed too. Utilizing established practice by credible media industry of 24/7 cycle of information the mis-, dis-, and mal-information farms have the ability to bombard generally digital illiterate Macedonian population and exploit on sensationalist (clickbait) rhetoric and content. Moreover, those who produce these news count on the information-sharing

practice in real-time between trusted peers where any piece of information is far less likely to be challenged (please also see more general as we explained on this in 2.1., but also in 3.2.).

These new trends, however, as the above and many other discussions have shown, are mostly utilized by the youth as a progressive force in society. Although mis-, dis-, and mal-information are a disease for the whole society the Macedonian youth seems to be the most vulnerable group. Now, through devices, youth is directly accessible at any time of day by peers, corporations, and even by state proxies and extremist recruiters and predators. In fact, the analysis above showed that most of the Macedonian citizens involved in mis-, dis-, and mal-information (either as the disseminator or as a target) are young people chasing opportunities.

While these trends have generally caught the Government and relevant national stakeholders' and partners states' and organizations' attention the deliberate and politically motivated disinformation campaigns, often centerstage in Macedonian media, are drastically shaping public perceptions and policy. The well-intended efforts to address mis-, dis-, and mal-information via Macedonian cyberspace, without systematic content, however, have caused another concerning effect, i.e., the general distrust of news. As a result, this effect (distrust of news) has contributed to widespread cynicism and a growing belief that nothing is true. Moreover, addressing the

consequences of mis-, dis-, and mal-information political elites in North Macedonia (as elsewhere) have underlined and in some cases excerpt the ideological context. Both ruling and opposition political elites have tried to spin the context of addressing mis-, dis-, and mal-information dividing the general public further, both ideologically and on the mere acceptance of the fact, providing credence to ideological claims of “fake news.”¹²⁶ These consequential effects are a danger to our society, and most of all, to developing children and youth who are learning to discern what is real and true, and how to behave as engaged citizens, responsible consumers, healthy individuals, and informed creators of content.

In order to assess the Government's and other relevant stakeholders' readiness to address the negative effects of ICT and social applications to Macedonian youth, our analysis will dig deep

into the official Government's strategic and policy approach to the issue. This part will be an add-on to the field research focusing on the education system's stakeholders' (high school's workers, students, parents) awareness and readiness to comprehend the threats from ICT and social media. Moreover, the analysis that follows is also based on the conclusions (and thus represent a compilation) from the contextual webinar debate with the relevant stakeholders on the issue.

126 See for example findings of a Stanford based study: Cable Jack, Isabella Garcia-Camargo, Renée Diresta, (October 13, 2020), “A Look Into Viral North Macedonian Content Farms”, available at: <https://www.eipartnership.net/rapid-response/north-macedonian-content-farms>; Also see: Synovitz Ron, Mitevska Maria, (October 22, 2020), “Fake News Sites In North Macedonia Pose As American Conservatives Ahead Of U.S. Election”, Radio Free Europe, available at: <https://www.rferl.org/a/macedonia-fake-news-sites-us-election-conservatives/30906884.html>



5

**Assessment of the strategic,
legislative and relevant
stakeholders' readiness to address the
threat streaming from ICT and
social application to Macedonian youth**

Assessment of the strategic, legislative and relevant stakeholders' readiness to address the threat streaming from ICT and social application to Macedonian youth

Several investigative reports, but also incidents, indicate that there is a growing threat to Macedonian youth streaming from ICT and social media applications. After police action the Cell in 2015, allegedly an Islamic-based organization hacked government websites.¹²⁷ During the opening ceremony of the Regional School on Security 2019 in Skopje, Bulgarian university professor Tatyana Dronzina claimed that *Macedonia has been targeted by Russian cyber-threats from centers based in Bulgaria.*¹²⁸ These attacks according to her took place *"During the elections in North Macedonia", when "centers of Russian intelligence based in Bulgaria conducted several cyber-operations against North Macedonia"*¹²⁹

The U.S. Overseas Security Advisory Council (OSAC), a joint venture between the Department

of State and the U.S. private sector, in a Government's Country Security Report for North Macedonia observed that cybercrime in North Macedonia continues to be a concern.¹³⁰ According to the report, cybercriminals use spam and phishing e-mails to compromise online accounts and steal personal information. The report also claims that in 2019, North Macedonia had 156 documented cybercrime offenses, with damage and illegal access to computer systems being the most common (60 cases). The government, according to these data, brought 26 criminal cases against individuals who used computers to distribute racist or xenophobic material. Alarming, nevertheless, is that "In total, cyber-related crimes in North Macedonia increased by 70% compared to 2018".¹³¹

127 Vjesti, (2015), (Macedonian websites hacked" (Original in Croatian: "Hakovani sajtovi makedonskih institucija"), Available at: <https://www.vijesti.me/svijet/balkan/168775/hakovani-sajtovi-makedonskih-institucija>

128 Skopje Diem, (October 7, 2019), "Dronzina: North Macedonia Was Target of Russian Cyber-threats", available at: <https://skopjediem.com/2019/10/07/dronzina-north-macedonia-was-target-of-russian-cyber-threats/>

129 Ibid

130 Overseas Security Advisory Council (OSAC), (July 14, 2020), "North Macedonia 2020 Crime & Safety Report", available at: <https://www.osac.gov/Country/NorthMacedonia/Content/Detail/Report/4c2842d7-0569-4811-8e69-192b0f314190>

131 Ibid; Giving that for the purpose of this report, we have contacted some of the participants involved in the preparation of the National Cyber security strategy it is worth to mention that their view about this story claims have some logical explanation that provides slide different perception for the outcome and is worth mentioning. Namely, according to the experts, we interviewed the reason for Councils' slow reaction lays in the current elections, and the effects caused by COVI-19. As the experts underlined, though the Council is not active some consultations are ongoing.

Our research showed that Government officials have sufficient awareness about the threat and that they have a certain level of commitment to address these threats. Following the EU and UNESCO efforts to promote MIL,¹³² different government authorities have accepted this framework and have, therefore, strived to address them in different ways.

The Republic of North Macedonia has no specific strategy for MIL. Instead, certain provisions across the relevant laws or bylaws refer, imply, or promote elements of MIL, that is ML. Such provisions, for example, are the freedom of expression and media freedom, ethical behavior of journalists and editors, protection of children from inappropriate content, and protection of the public. On the other hand, instead of IL, Government authorities have used the term digital literacy in a variety of national documents, legislation, and regulations.¹³³ In all of these addressing nevertheless, the main focus is on building populace (including youth - through elementary and high schools) capacities to comprehend ICT and to increase own efficiency and work productivity by using ICT.

Unlike IL, which has mostly been in the governmental focus, ML was a focus and was largely developed by the journalist and CSO

community.¹³⁴ This trend, nevertheless, was changed recently by the Agency for Audio and Audiovisual Media Services (AAAMS), which according to the official documents is responsible for the development and promotion of media literacy and safe use of new media. Namely, the joint project between the EU and the Council of Europe titled "Reinforcing Judicial Expertise on Freedom of Expression and the Media in South-East Europe", in 2019, supported the AAAMS in promoting strategic framework and policy for ML in the Republic of North Macedonia.¹³⁵ The new Media literacy Policy is supposed to drive the process forward, especially after the Program for Promoting Media Literacy in the Republic of Macedonia 2016-2018.¹³⁶ Engaging both stakeholders and citizens alike, the new policy predicts activities compiled under specific Programme that for the first time aim at fighting phenomena such as disinformation and propaganda, cyberbullying, and surveillance and enable better use of technology.¹³⁷ According to the document, the Agency should contribute to *citizens' understanding of media literacy and increase its visibility and recognition (raising awareness); cooperate with international organizations, national ministries, and other stakeholders by means of networking, consultations, and reports (cooperation*

132 UNESCO, (2013), "Media and Information Literacy Policy & Strategy Guidelines", available: <http://www.unesco.org/new/en/communication-and-information/media-development/media-literacy/developing-mil-policy-and-strategy/>; Also see about joint efforts with the EU underlined during the 2015 Forum that followed the First European Media and Information Literacy Forum (EU-MILINFO) held in 2014. The usefulness and desire for a collective ownership EMELINFO was reiterated in the First Coordination Meeting of the European Sub-Chapter of the UNESCO-initiated Global Alliance for Partnerships on Media and Information Literacy held on 8 and 9 October 2015., more information available at: UNESCO, (2015), "Second European Media and Information Literacy Forum", available at: <http://www.unesco.org/new/en/communication-and-information/media-development/media-literacy/global-alliance-for-partnerships-on-media-and-information-literacy/second-european-media-and-information-literacy-forum/>

133 See for example Ministry of Information Society (December 21, 2017), "Digital Literacy Promotion Project in the Republic of Macedonia - National MOS (Microsoft Office Specialist)", available at: <http://arhiva.mioa.gov.mk/?q=node/4534>; Also see Ministry of Information Society, (October 22, 2020), "Signed Memorandum of Cooperation Between MISA and MASIT",

where among others, "Raise the level of digital literacy of citizens by means of trainings" is one of the projected activity., available at: <https://mioa.gov.mk/?q=en/node/3152>

134 European Commission, (November 29, 2019), "6.8 Media literacy and safe use of new media, Republic of North Macedonia", EACEA National Policies Platform, available at: https://eacea.ec.europa.eu/national-policies/en/content/youthwiki/68-media-literacy-and-safe-use-new-media-former-yugoslav-republic-macedonia#_ftn2

135 Agency For Audio And Audiovisual Media Services, (March 2019), "Media Literacy Policy", available at: http://mediumskapismenost.mk/media/2019/04/Media-Literacy-policy_online-version.pdf

136 Agency For Audio And Audiovisual Media Services, (2017), "Programme for Promoting Media Literacy in the Republic of Macedonia", available at: http://mediumskapismenost.mk/media/2017/12/Programme_for_Promoting_Media_Literacy.pdf

137 Agency For Audio And Audiovisual Media Services, (March 2019)

and consultations); improve the conditions for civic and democratic participation, including incorporating media literacy and its inspiring principles in national related policy and strategies, including media freedom and pluralism (policy and trends).¹³⁸ In March 2019 the AAAMS adopted the new Regulatory Strategy for the Development of Audio and Audiovisual Media Activity 2019-2023.¹³⁹ The Strategy covers several areas, including media literacy.

The Report for the work of the AAAMS for 2017 stipulates that the Agency strived to promote media literacy and therefore accomplished a set of activities.¹⁴⁰ One of the achievements worth mentioning is the “Media Literacy Network of the Republic of North Macedonia”, which has 35 founding members ministries, state institutions, higher education institutions, civic associations, and organizations).¹⁴¹ According to the official report, AAAMS with some of the members of the Network *promoted educational material on media literacy for primary schools in the country; finalized the development of a separate web page dedicated solely to media literacy; print a leaflet which explicitly explains the basic principles of media literacy; adapted and promoted a video clip from EAVI for raising awareness about media literacy, etc.*¹⁴²

While analyzing the work of the AAAMS one could develop an understanding that ML including

countering disinformation could be exclusive strategic and organizational responsibility in 2019 the Government has announced its own plan to tackle the disinformation. Namely, after being marked as a “fake news capital”, the Government announced that is working on an “Action Plan for managing disinformation on a systemic level”.¹⁴³ The objective, according to the official who announced the information, is “to enhance the national security and safety of our citizens while defending and advancing democracy”.¹⁴⁴ This Proposed Action plan is a compilation of processes, projects, measures, and recommendations for fighting disinformation, prepared as a result of the measures of the European Commission, NATO Information and Communications Agency, as well as the Committee of Experts on Quality Journalism within the Council of Europe. The proposed action plan, however, as it was reported then, supposed to be discussed within the institutions and become a subject to consultations with the civic sector, media, and various stakeholders within the society, including the strategic partners of the Republic of North Macedonia, in order to refine it to its final version.¹⁴⁵

While these and similar efforts remain valuable as ever and demonstrate clear Government’s commitment to take the lead in addressing this problem our research has identified two other challenges.

138 Ibid

139 Agency For Audio And Audiovisual Media Services, (March 2019) Regulatory Strategy for the Development of Audio and Audiovisual Media Activity 2019-2023” (Original: Регулаторна стратегија за развој на аудио и аудиовизуелната медиумска дејност 2019-2023) Available at: <https://avmu.mk/wp-content/uploads/2019/03/%D0%A0%D0%B5%D0%B3%D1%83%D0%B%D0%B0%D1%82%D0%BE%D1%80%D0%BD%D0%B0%D1%82%D0%B0-%D1%81%D1%82%D1%80%D0%B0%D1%82%D0%B5%D0%B3%D0%B8%D1%98%D0%B0-%D0%B7%D0%B0-%D0%BF%D0%B5%D1%80%D0%B8%D0%BE%D0%B4%D0%BE%D1%82-%D0%BE%D0%B4-2019-%D0%B4%D0%BE-2023-%D0%B3%D0%BE%D0%B4%D0%B8%D0%BD%D0%B0.pdf>

140 Report on the work of the Agency for Audio and Audiovisual Media Services for 2017, Agency for Audio and Audiovisual Media Services, (March, 2018) p.6 https://cdn.epra.org/organizations/second_documents/54/

[original/%D0%93%D0%BE%D0%B4%D0%B8%D1%88%D0%B5%D0%BD-%D0%B8%D0%B7%D0%B2%D0%B5%D1%88%D1%82%D0%B0%D1%98-%D0%B7%D0%B0-%D1%80%D0%B0%D0%B1%D0%BE%D1%82-%D0%B0-%D0%BD%D0%B0-%D0%90%D0%92%D0%9C%D0%A3-%D0%B7%D0%B0-2017-%D0%B3%D0%BE%D0%B4%D0%B8%D0%BD%D0%B0.pdf?1535034532](https://cdn.epra.org/organizations/second_documents/54/original/%D0%93%D0%BE%D0%B4%D0%B8%D1%88%D0%B5%D0%BD-%D0%B8%D0%B7%D0%B2%D0%B5%D1%88%D1%82%D0%B0%D1%98-%D0%B7%D0%B0-%D1%80%D0%B0%D0%B1%D0%BE%D1%82-%D0%B0-%D0%BD%D0%B0-%D0%90%D0%92%D0%9C%D0%A3-%D0%B7%D0%B0-2017-%D0%B3%D0%BE%D0%B4%D0%B8%D0%BD%D0%B0.pdf?1535034532)

141 Ibid

142 Ibid

143 Government of the Republic of North Macedonia, (July 24, 2019), “Proposed Plan for Resolute Action against the Spreading of Disinformation”, available at: <https://vlada.mk/node/18641?ln=en-gb>

144 Ibid

145 Ibid

First, there is a conceptual challenge (lack of a framework that will converge media and informational literacy). Second, there is no systematic approach in raising awareness and/or building capacities to sustain, counter, and mitigate negative effects from ICT and social media applications that exploit Macedonian youth's vulnerability. Put differently, there is no logical operationalization of the strategic documents and action plans.

Concerning the first challenge, it is worth mentioning that recent AAAMS and Government strategic documents try to converge the ML and IL. From most of the past and the current work, one could get a feeling that ML competencies are the stronger side of the AAAMS and the Government and IL is not. Nevertheless, without concrete actions that could be evaluated, it is not clear whether or not the designated authorities to tackle the challenge of the threats streaming from ICT and social applications have the capacities to promote and sustain MIL in full mode (ML plus IL).

The second challenge is evident in the context of ML and IL. Though AAAMS has recognized that ML needs to be promoted through the education system, and despite the numerous reforms in the curricula and subjects and their content, both in primary and secondary education there is no single document, law, strategy, a program for the development of education, in which ML is incorporated. Even in the relatively new Education Strategy 2018-2025, ML as a term has not been mentioned at all.¹⁴⁶ While the Strategy is innovative and right on the target aiming at the development of generic and core competencies

of pupils (and all learners), *“thus promoting critical thinkers, active and relevant participants in social life”*, there is no separate study program for ML that is taught in schools.¹⁴⁷ To be fair, our research showed that certain segments of the media (their characteristics, differences between false and real news, as well as education for recognizing information sources and assessing their quality) are present in the curriculum on the subject Civic Education in Primary and Secondary Education. However, the total number of classes where these topics are discussed is almost negligible, which makes it difficult to talk about the acquisition of comprehensive knowledge in this field.

The second challenge in the context of IL is even more complex. Different areas identified as a source of threat vectors to the youth streaming from ICT and social media applications are not addressed by the single authority. Though AAAMS and to a certain degree the Government claim to invest in safety, online harassment competencies, and to a certain degree spread of disinformation¹⁴⁸ are competences of the Ministry of Interior. Online radicalization is even a bigger problem because except for awareness there is no regulatory norm, conceptual and systematic framework and with that, a clearly designated authority that should approach and tackle the issue. Hence, documents such as the National Cyber Security Strategy 2018 – 2022 and National Cyber Security Action Plan 2018-2022, or National Strategy Of The Republic Of Macedonia For Countering Violent Extremism should also be considered and synchronized with the above-mentioned plans addressing ML.

146 Ministry of Education and Science (2018), “Education Strategy and Action Plan”, available at: <http://mrk.mk/wp-content/uploads/2018/10/Strategija-za-obrazovanie-ENG-WEB-1.pdf>

147 Ibid

148 Ministry of Interior informed the citizens - users of social networks not to share and spread unverified or “fake” news about the Covid 19 virus, which creates anxiety and panic among the citizens. abuses will be legally sanctioned because in this way the citizens are disturbed and unnecessary panic is created. There will be no compromise in sanctioning those who knowingly spread false news. We appeal to the media and users of social networks to refer only to the officially published data from the competent institutions. See: Blazevski Teo, (Mar 12, 2020), “For spreading false news about “Covid 19” can end up in prison”, available at: <https://vistinomer.mk/za-shirenje-lazhni-vesti-za-kovid-19-mozhe-da-se-zavrshi-i-vo-zatvor/>

The other part of this complex challenge in the context of IL stems from insufficient evidence of operationalization on a strategic framework. Namely, although there are evident government efforts that reflect the political elite's awareness about the importance to address the threat streaming from ICT and social media applications, there is no publicly available evidence that will describe efforts to operationalize these strategic documents.¹⁴⁹

An independent investigative report, published by BIRN, seems to support these claims.¹⁵⁰ The report recognized that the political authorities have been agile in adopting some of the strategic documents such as the National Cybersecurity Strategy,¹⁵¹ and the national cybersecurity action plan.¹⁵² However, since then, according to the report, the Government has not been active in transferring strategic framework into actions.¹⁵³ While these attacks have gradually grown, a National Council for Cyber Security, bringing together the ministers of interior, defense, and information society (as predicted by the National cybersecurity strategy), has reportedly met only once since its inception (2019).¹⁵⁴

On top of these challenges an Oxford independent study, sponsored by the World Bank,¹⁵⁵ further support our findings and thesis a) about merging ML and IL and b) about coherent and immediate efforts to synchronize and operationalize national efforts to address threat vectors from ICT and social media applications that exploit Macedonian youth's vulnerability. The study's alarming results about the Country's readiness and maturity of cybersecurity capacity, among others, found that *"the majority of Internet users 'blindly' trust information and communication technologies (ICT) and Internet services. Participants indicated that users are mostly unaware of any risks when using the Internet and assume that they are safe to use online services. Most users do not have the ability to critically assess the content they see and receive online, nor the applications they use. Among the concerns raised by the participants were also those cases where users were aware of the risks – in the cases of cybercrime, cyberbullying and data breaches, for example – but they did not undertake the necessary security measures out of convenience"*.¹⁵⁶

Therefore, we believe that proposition provided in the next chapter is worth considering.

149 Although we do not have empirical evidence for such an outcome, one reason for this might be the effect of a worldwide pandemic caused by COVID-19. In these regards, we have noticed that almost all of the strategic documents and plans mentioned in the context of our research dates from 2018. Nevertheless, this assumption needs further clarification.

150 Stojkovski Bojan, (May 22, 2020), "Hackers Expose Gaping Holes in North Macedonia's IT Systems", BIRN, available at: <https://balkaninsight.com/2020/05/22/hackers-expose-gaping-holes-in-north-macedonias-it-systems/>

151 Government of the Republic of Macedonia, (July 17, 2018), "National Cybersecurity strategy 2018-2022", available at: https://mioa.gov.mk/sites/default/files/pbl_files/documents/strategies/cyber_security_strategy_macedonia_2018-2022_-_eng.pdf

152 Government of the Republic of Macedonia, (December, 2018), "Republic of North Macedonia: National Cybersecurity Action Plan 2018-2022",

153 Stojkovski Bojan, (May 22, 2020)

154 Stojkovski Bojan, (July 28, 2020), "New Cyber Attacks on North Macedonia Spur Calls for Better Defences", BIRN, available at: <https://balkaninsight.com/2020/07/28/new-cyber-attacks-on-north-macedonia-spur-calls-for-better-defences/>

155 Nagyfejeo Eva, Weisser Carolin & Griffin Matthew, (2018), "Cybersecurity Capacity Review FYR Macedonia 2018", Global Cybersecurity Capacity Center, Oxford

156 Ibid,



**Improving Macedonian
Youth's online literacy in the
context of safety and security**

Improving Macedonian Youth's online literacy in the context of safety and security

The online threat landscape urges relevant national/ local and civil society stakeholders to address challenges that undermine our youth safety, security and privacy. Macedonian youth need to understand the consequences of using and abusing ICT and social media; understand the threat that they might get involved in; critically assess the information they get or see; to make a good judgment about the content they get or see before sharing this information or decide to take any action based on the information or content they received or access (come across). Moreover, our youth need to be able to make good choices about privacy, ethics, safety and verifying information when they're using ICT and social media while staying digitally involved.

Disconnecting youth from the ICT and social media as a protectionist approach is not a choice. Overprotection and overregulation also might cause tensions and shift the balance between safety and security on one hand and innovation, chasing opportunities, not to speak about privacy and freedoms, on the other hand toward the wrong end. The Government should ensure that youth progressively acquire media and information competencies to enable them to fully capitalize on this potential access. The best way to achieve this is to invest in ICT and social media resilient youth.

Resilience, in general, is a concept that should empower Macedonian youth to absorb, sustain and bounce back against the threat vectors coming from ICT and social media exploitation while preserving and at the same time capitalize on the positive aspects.

Among others, one of the main efforts in building ICT and social media resilient youth is to improve youth's online literacy.

Macedonian youth need strong literacy skills to participate constructively in a pluralistic democracy facing complex domestic, regional and global challenges. These challenges range from a large national debt, social stability, ethnic and religious relations on a community and national level, demographic dynamics up to regional disagreements, disputes and challenges such as the rise of violent extremism, hybrid threats, global warming, the digital transformation the proliferation of nuclear weapons and AI applications and systems.

ICT and social media contain plenty of information about these challenges. The problem, however, is that surfing through the conflicting arguments and judging which pieces of evidence hold up to scrutiny require significant literacy skills. The nation's ability to meet these challenges is quite likely to depend on the extent to which the electorate understands them. Giving that the target audience of this study (youth 15-18) in a few years will be qualified voters (and some already are qualified voters) the urgency of addressing online literacy is imperative.

The quest for a conceptual framework, guidance and good practices of improving online literacy among Macedonian youth lead to the pioneering work in the field. Recognizing the importance of improving media literacy in general dates back to the 7th European Ministerial Conference on Mass Media Policy.¹⁵⁷

157 The 7th European Ministerial Conference on Mass Media Policy, as seen in The Council of Europe, (2016), "European Ministerial Conferences on Mass Media Policy and Council

of Europe Conferences, of Ministers responsible for Media and New Communication Services", p.46, available at: <https://rm.coe.int/16806461fb>

In 2007 the European Commission adopted a Communication – A Europe an approach to media literacy in the digital environment. The document covers different levels of media literacy and distinguishes among “information literacy”, “digital literacy”, “audio-visual literacy”, “movie literacy” and “culturological literacy”.¹⁵⁸ The European Commission Recommendation on Media Literacy in Digital Environment from 2009, went a step further and argued for “intellectual and emotional understanding of the digital media”, but also demanded inclusion of media literacy in the teaching programs on all levels.¹⁵⁹ What is also significant was that since 2010, the EU has begun to merged media and information literacy.

United Nations Educational Scientific and Cultural Organization (UNESCO), has recognized the importance of the issue. Therefore, in 2013 UNESCO has published extensive Policy and Strategy guidance on Media and Information Literacy.¹⁶⁰ This comprehensive Media and Information Literacy Policy and Strategy Guidelines resource are the first of its kind to treat Media and Information Literacy as a composite concept. The guidelines unify information literacy and media literacy as well as considering the right to freedom of expression and access to information through ICTs.¹⁶¹ Though the UNESCO literacy policies and strategy guidelines have a wider focus than our study the document provides a framework that requires further attention and offers a conceptual framework for future work. Later, the EU joined UNESCO in promoting this concept.¹⁶²

As the analysis (please see in 5.) has shown while there are some efforts to improve digital literacy in terms of building digital (ICT) capacities to access and use ICT in the educational process,

there are no systematic efforts to develop safety and security awareness as a part of the overall online literacy among the Macedonian youth.

A good starting point toward this direction is to follow the UNESCO suggestion to develop a strategy that will address the issue. The strategy should bridge the gap between policies and the desired impact we want to achieve among the youths. Hence, the strategy that will help to improve Macedonian youth’s online literacy (in the context of safety and security) should address the following broad strategic areas:

- › Formal education (building capacities among teachers, students, librarians, policymakers, researchers, administrators);
- › Non-formal education and continuing education (raising awareness among parents, caregivers, community leaders, etc.)
 - › Civil society in general: community groups, NGOs, CBOs, etc.
 - › Out of reach (citizens in deprived communities), those without access to education or are illiterate
 - › Professionals – on the job training
- › Other stakeholders. Media and technology-related organizations, media regulatory bodies, libraries and other memory institutions, training institutes, the corporate world (advertising and its impact, corporate social responsibility), other partners government entities, particularly ministries and other relevant organizations.
- › Integration of MIL strategies with other related strategies; Enabling environment (identify government policies and programmes that can promote MIL or militate against MIL)

158 The European Commission, (December 12, 2007), “A European approach to media literacy in the digital environment”, Brussels, COM(2007), available at: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM%3A2007%3A0833%3AFIN%3AEN%3APDF>

159 The European Commission, (August 20, 2009), “Commission Recommendation of 20 August 2009 on media literacy in the digital environment for a more competitive audiovisual and content industry and an inclusive knowledge society”, OJ L 227, 29.8.2009, p. 9–12, available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32009H0625>

160 UNESCO, (2013), “Media and Information Literacy, Policy and Strategy Guidance”, available at: <http://www.unesco.org/new/en/communication-and-information/resources/publications-and-communication-materials/publications/full-list/media-and-information-literacy-policy-and-strategy-guidelines/>

161 Ibid

162 UNESCO, (April 5, 2019), “EU and UNESCO collaborate to strengthen youth media and information literacy skills”, available at: <https://en.unesco.org/news/eu-and-unesco-collaborate-strengthen-youth-media-and-information-literacy-skills-0>



Conclusion

Conclusion

It is a well-accepted argument that ICT and social media applications provide both positive and negative impacts on youth across the globe. Macedonian youth is no immune to these trends. The research showed that in North Macedonia ICT and Social media applications are mostly utilized and used by Macedonian youth. Various factors influence why ICT and social media applications are mostly used by Macedonian youth. Young people tend to be more adaptive to new technologies and this also complies with young people's needs to communicate. These trends, nevertheless, merge the online and physical world and push Macedonian youth outside the traditional value chamber generally shaped by the family.

Hence, ICT and social media applications easily turn from opportunity to disruption. Thanks to the interconnectivity Macedonian youth may experience lifestyle, values and self-expression, consume and participate in social and political activism, boycotts, political comedy, self-organizing protests, and discussing politics online. In this line, ICT and social media may have negative mental and emotional effects on Macedonian youth. ICT and social media platforms are used as channels to mis, dis or mal – inform Macedonian youth thus impacting their ability to make critical decisions in a social, economic and political context. Moreover, utilizing ICT and social media applications for political purposes has provoked radicalization that leads to violent extreme actions from Macedonian youth.

The government has generally recognized these negative trends. Building on the trend to preserve the positive aspects of using ICT and social media applications and mitigate the negative ones, Government authorities are aware

of the importance to improve media literacy. Nevertheless, except for awareness, there are no concrete and conceptual attempts to address this problem. Several governmental authorities have been involved in these efforts attempting to tackle different aspects of media literacy. Instead of synchronizing and optimizing efforts, different authorities are trying to tackle the problem and thus may produce the resource, main efforts, manpower and other unintended competitions. Our research has confirmed these assumptions indicating that youth is aware of the threat (info gained from the questioners) but lack critical thinking capacities (the results from the questioners but also the recent incidents) that can further mitigate the negative effects of ICT and Social media applications. Therefore, we provide a recommendation for a comprehensive and strategic approach that will build and upgrade the existing efforts provided by the Media and Civil society sector and integrate media literacy efforts and information literacy efforts into media and information literacy efforts. This approach will enable the government to synchronize all the Government's efforts, stimulate and enhance bottom-up, solutions and finally empower communities to provide important support to building an online resilient society.

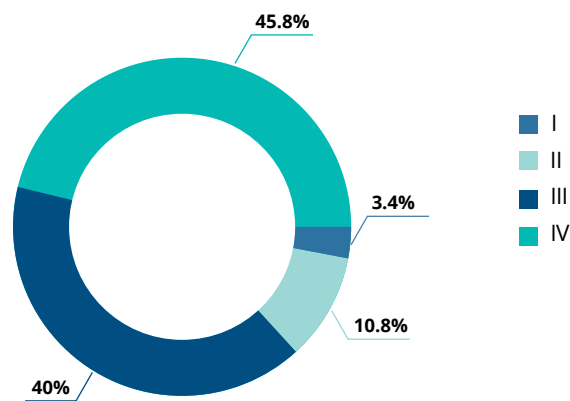
Another important conclusion from our research is that local authorities, schools and students' families showed interest in improving their skills in media and information literacy. Therefore, further efforts to sustain these valuable requirements with tailored capacity building programmes are urgent if the Government is about to mitigate negative effects from ICT and social media and promote the positive one.

Annex-1: Surveys Review

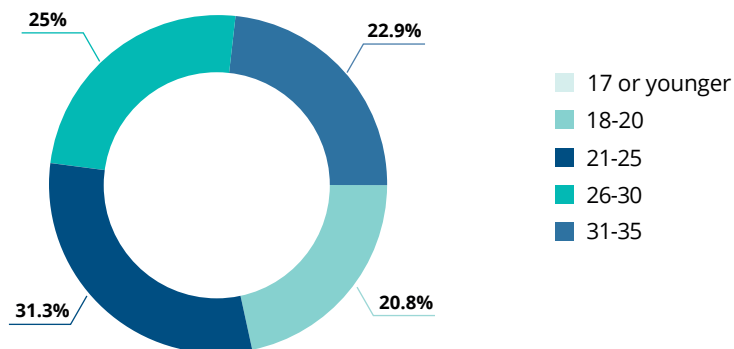
To survey the views on various topics in the field of ICT use, internet security, media literacy, and practices for dealing with various risks that users (high school staff, students, parents, and young

people up to 35 years old) would encounter while using the internet, 3 (three) questionnaires were created:

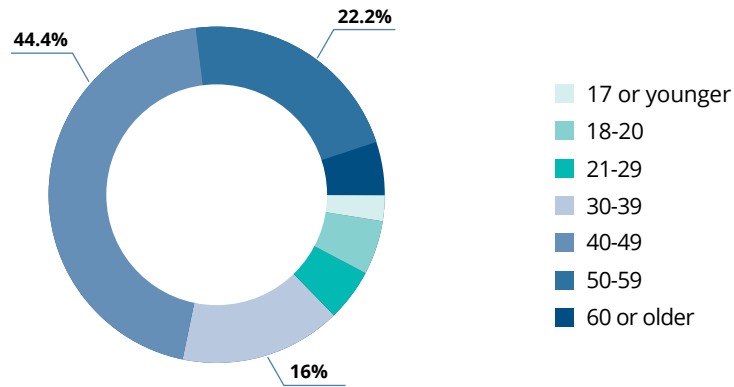
Graph 1. Questionnaire for online media literacy for students; (120 respondents) ; (Year of Highschool Education)



Graph 2. Questionnaire for online media literacy of young people 17 – 35 years; (48 respondents)



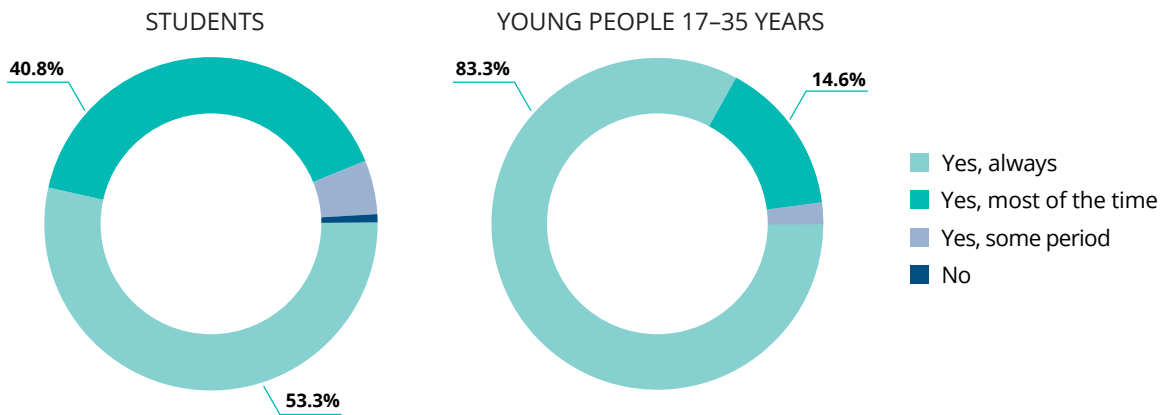
Graph 3. Questionnaire for online media literacy for teaching staff and parents. (83 respondents); (Age)



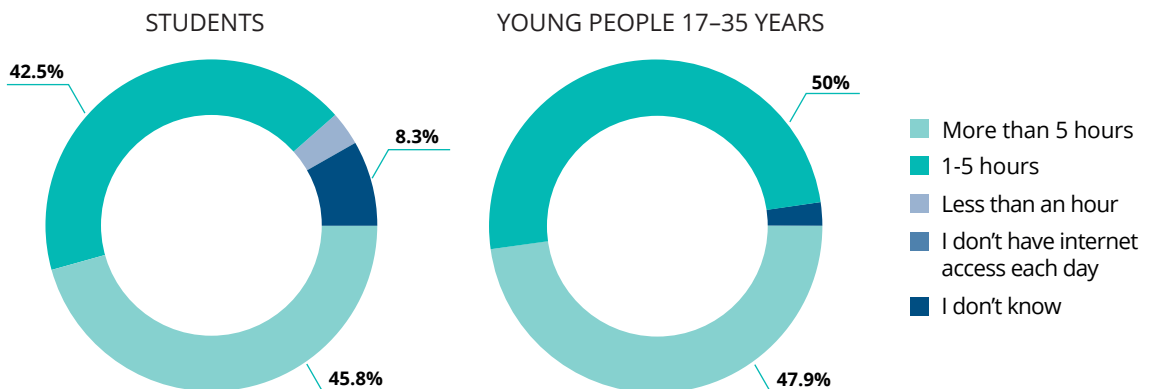
The responders were from 5 high schools from Skopje, Struga, Sveti Nikole, Veles, and Stip municipality.

The first and the second questionnaire are similar, that is why we will compare them, and we will discuss the third questionnaire for the teaching staff and parents at the end.

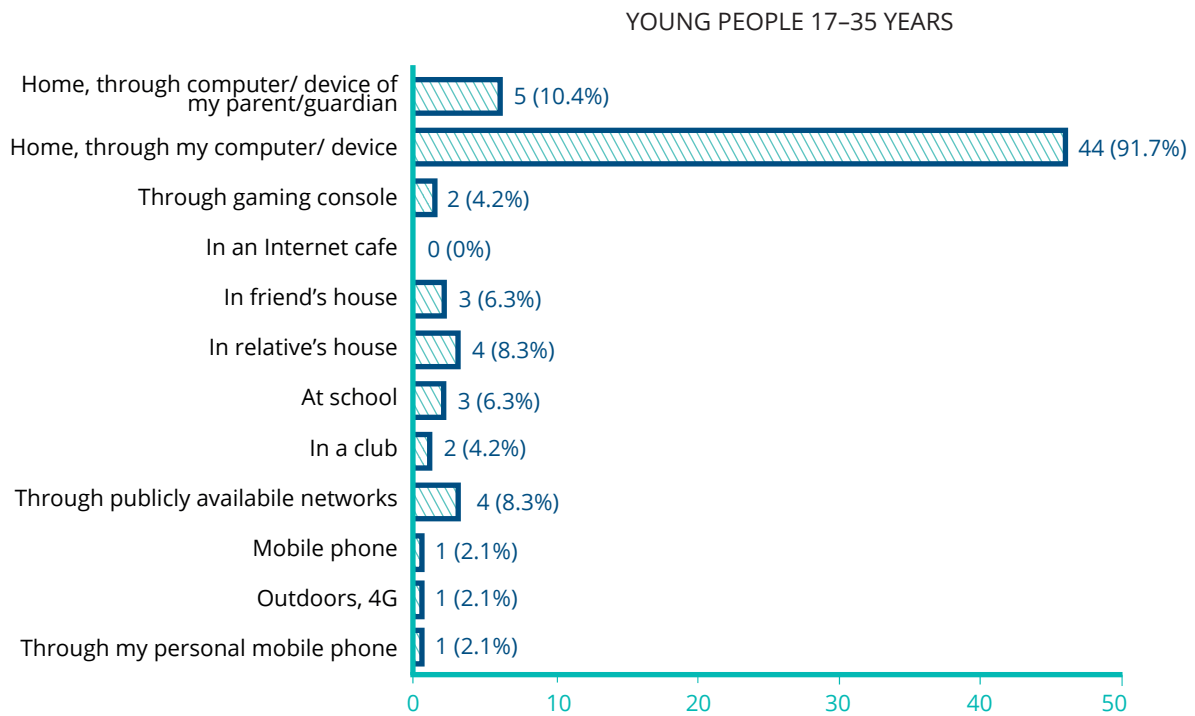
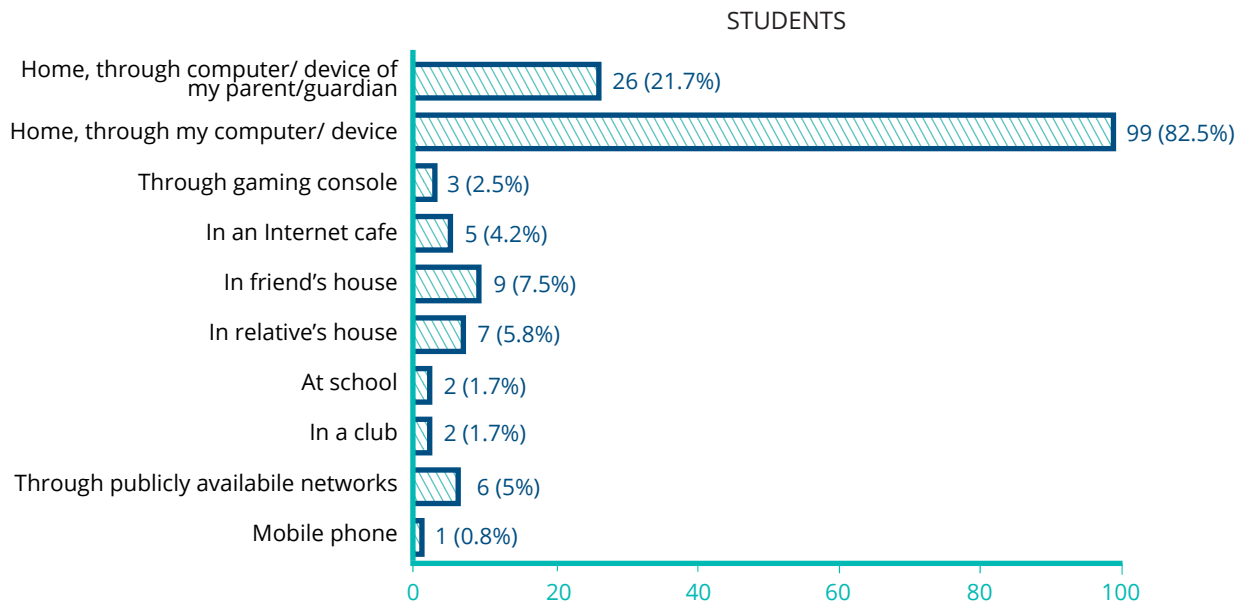
Graph 4. Question: Do you have internet access in your home?



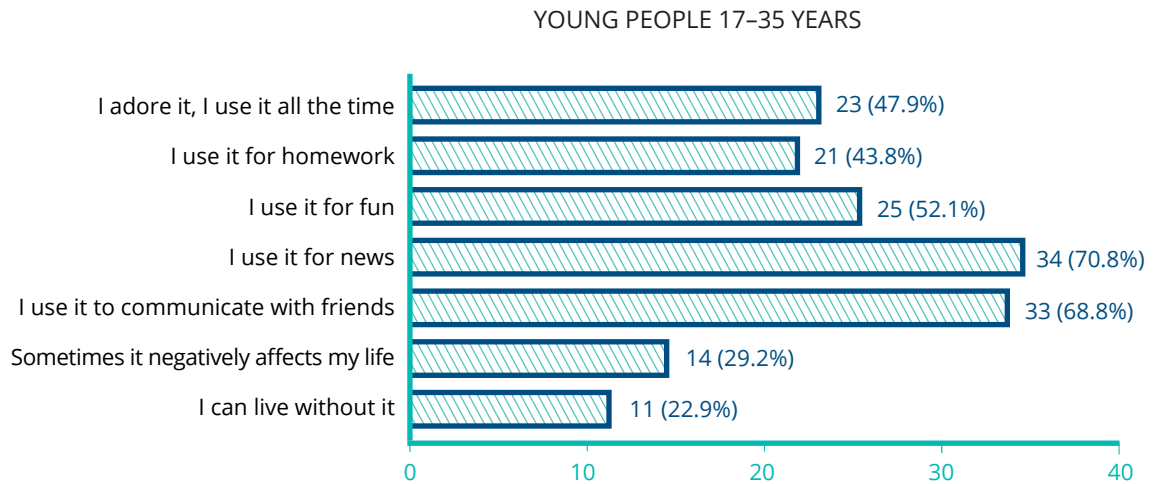
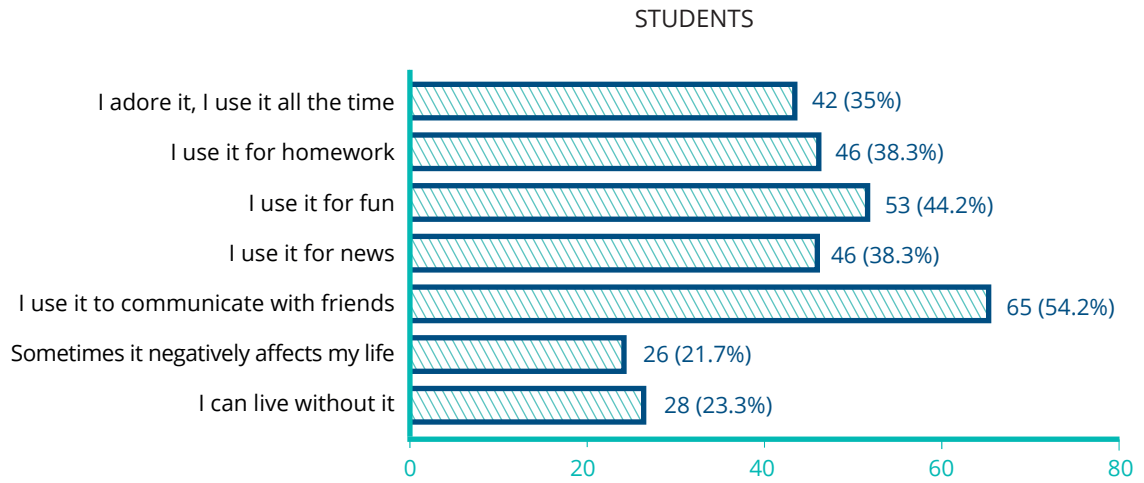
Graph 5. How much time do you spend on the internet each day (for students not taking into account online learning/education)



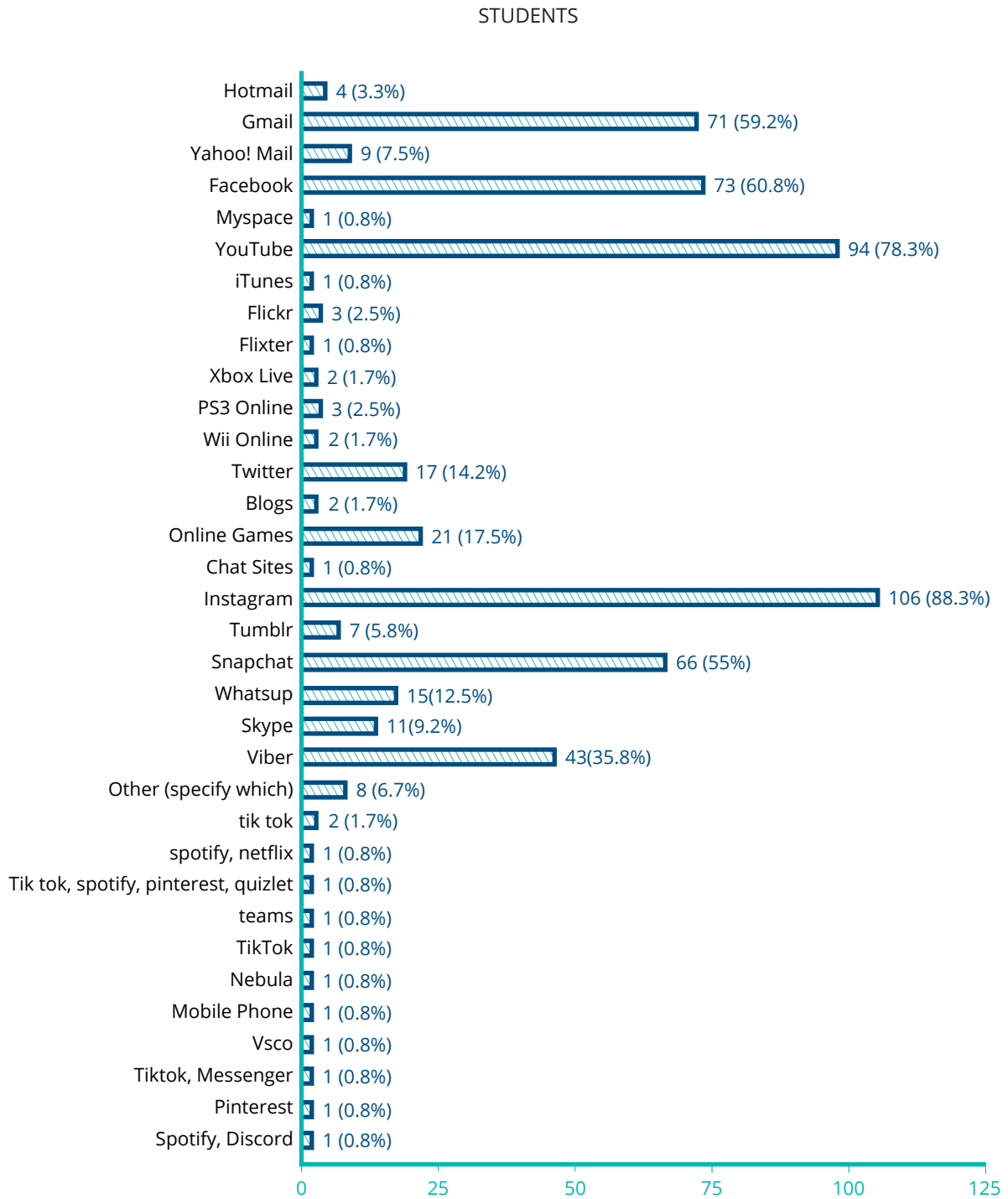
Graph 6. Question: How do you get access to the Internet?



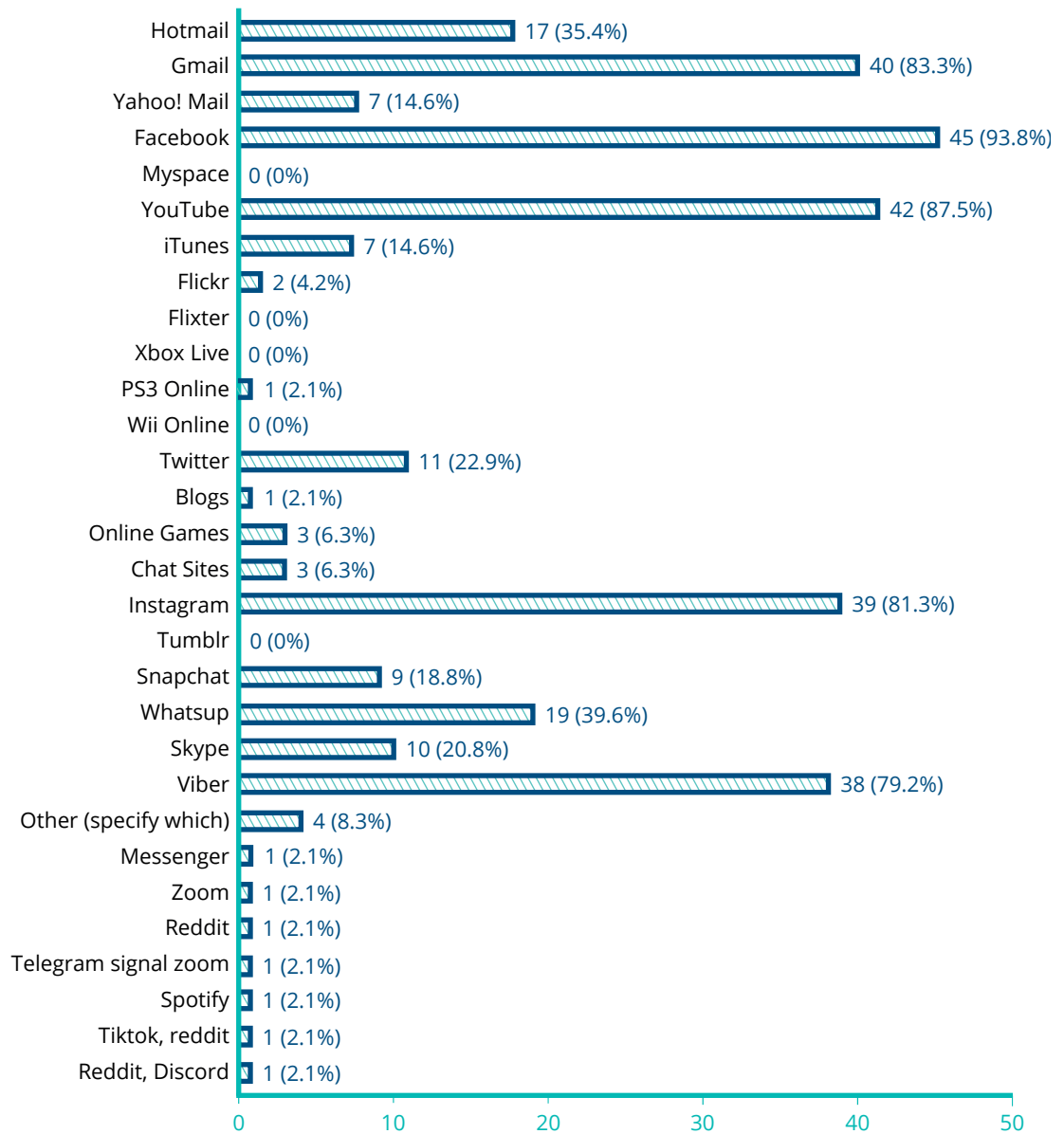
Graph 7. Question: Which of the following do you agree with about the internet?



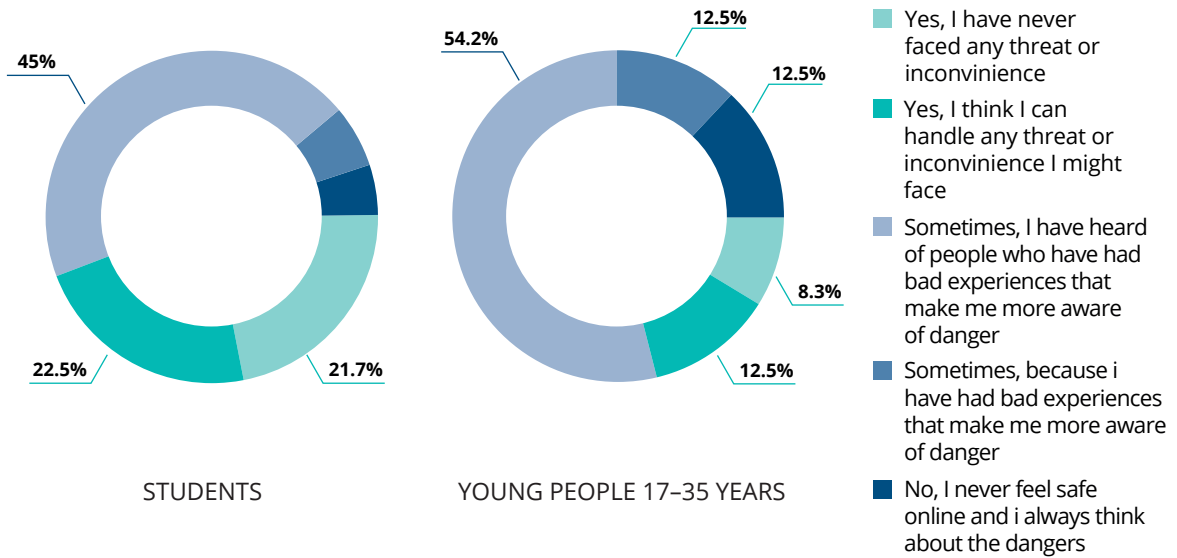
Graph 8. Which of the following services do you use most (daily or weekly)?



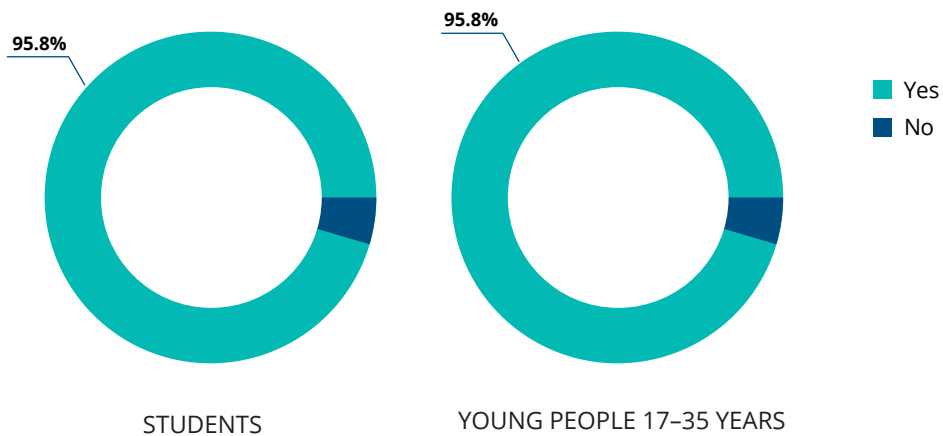
YOUNG PEOPLE 17-35 YEARS



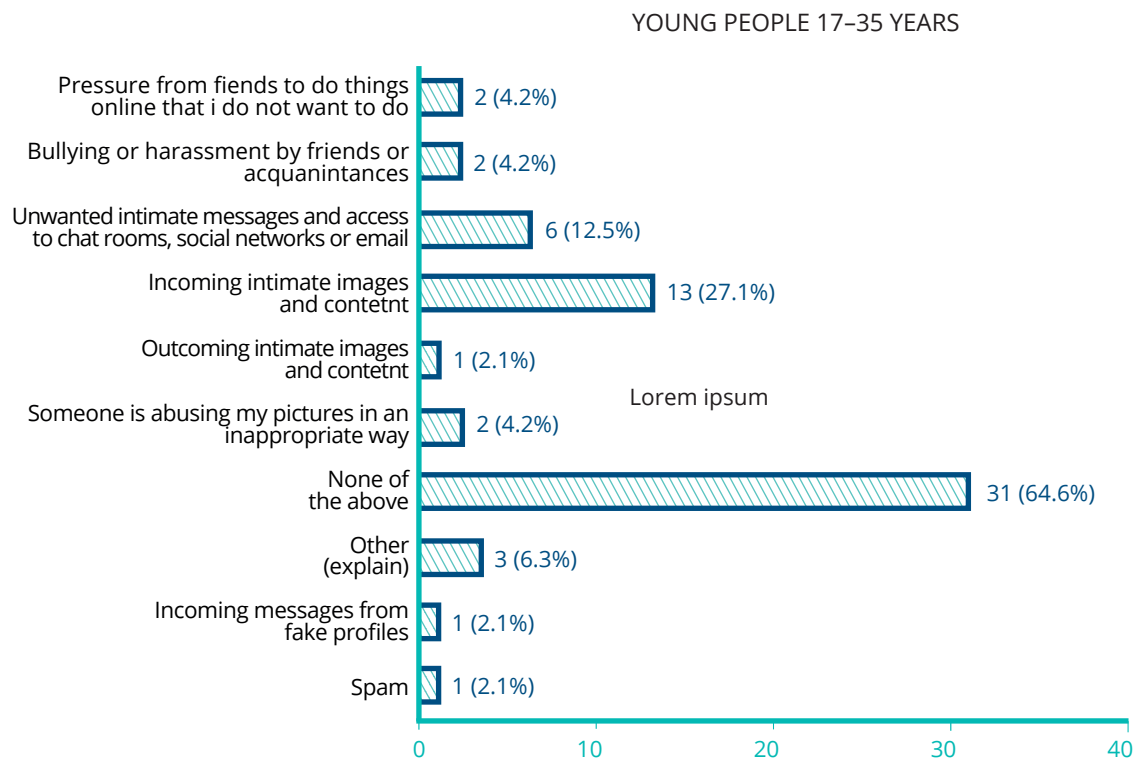
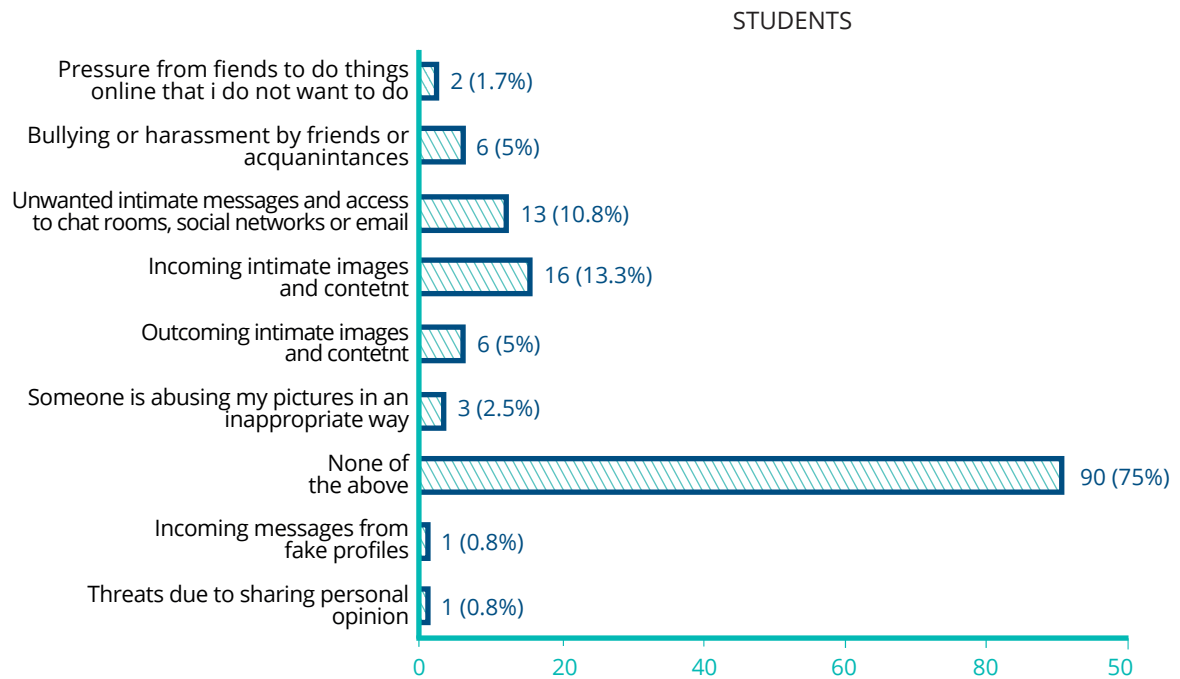
Graph 9. Question: *Do you feel safe on the internet?*



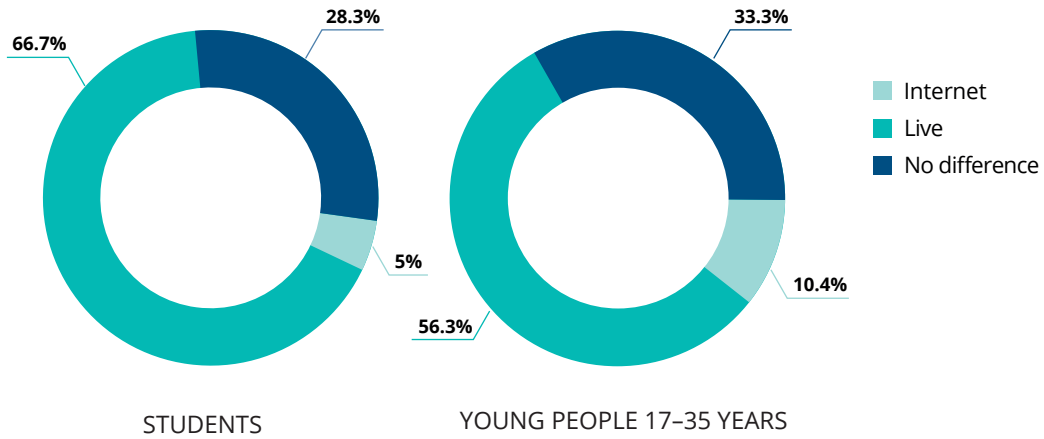
Graph 10. Question: *If you access an exciting website that you do not know well enough if you need to register and leave information about the place and address of residence, your parents, the password of your email address, or your profile on social networks, are you going to register to this website*



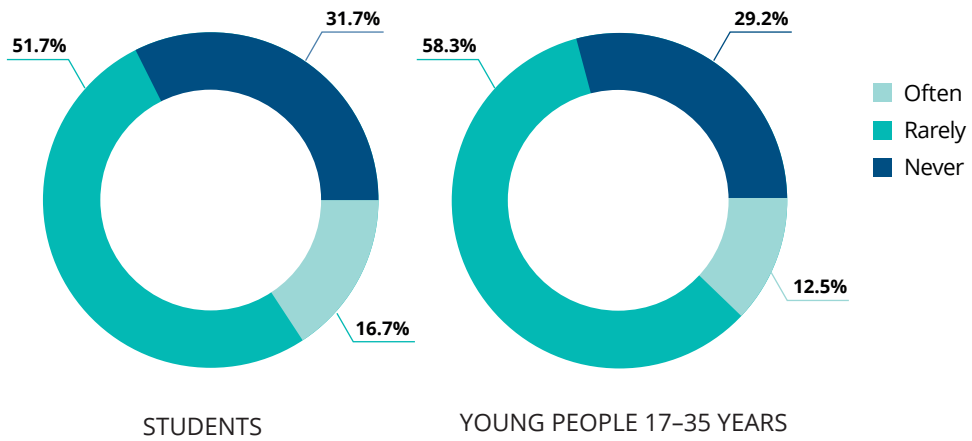
Graph 11. Have you encountered any of the following?



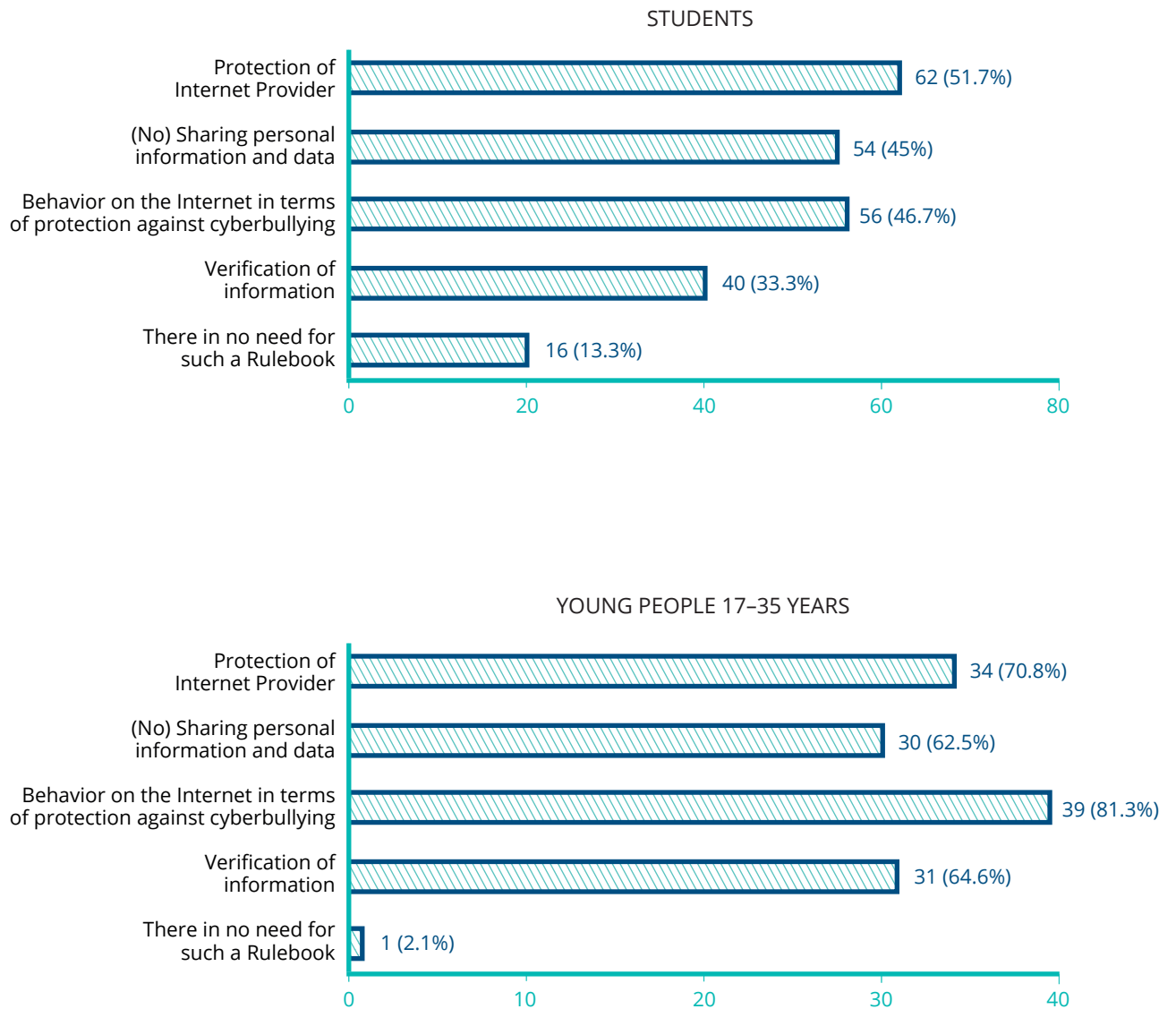
Graph 12. Question: *Is it easier for you to share experiences and information online or live?*



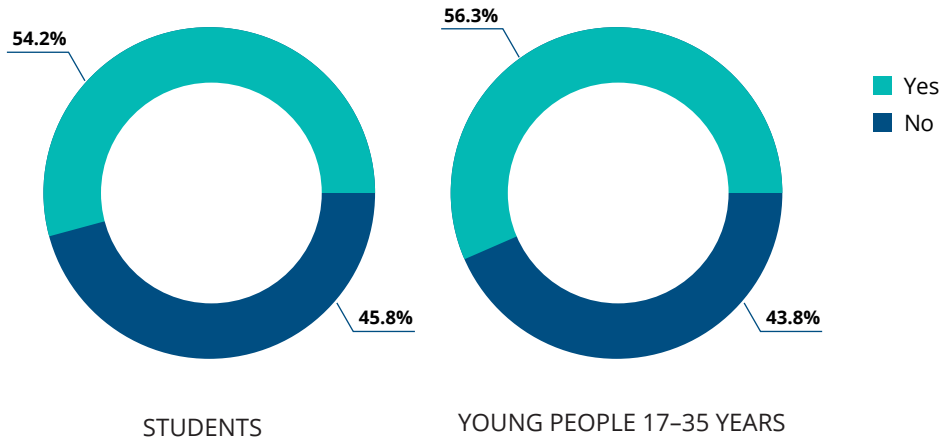
Graph 13. Question: *Have you ever stumbled upon a joke or fake online information?*



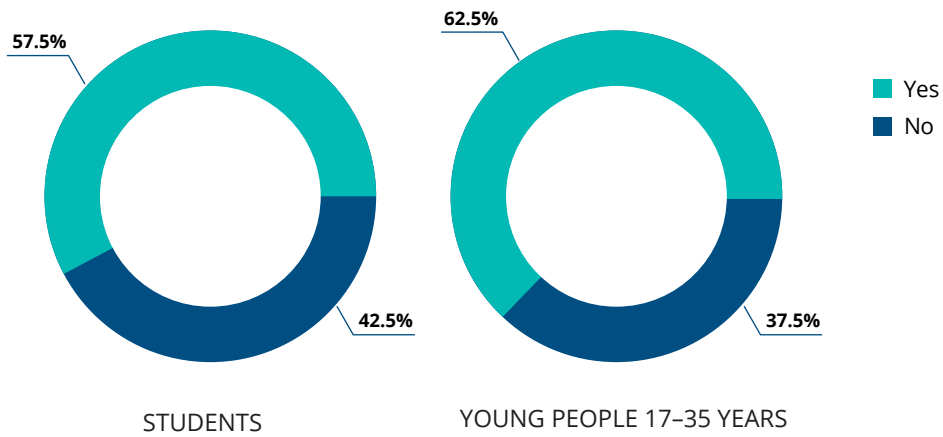
Graph 14. Question: Do you think there should be a Rulebook for the use of smart devices and the Internet in the school that will contain guidelines for (indicate what you think the Rulebook should contain):



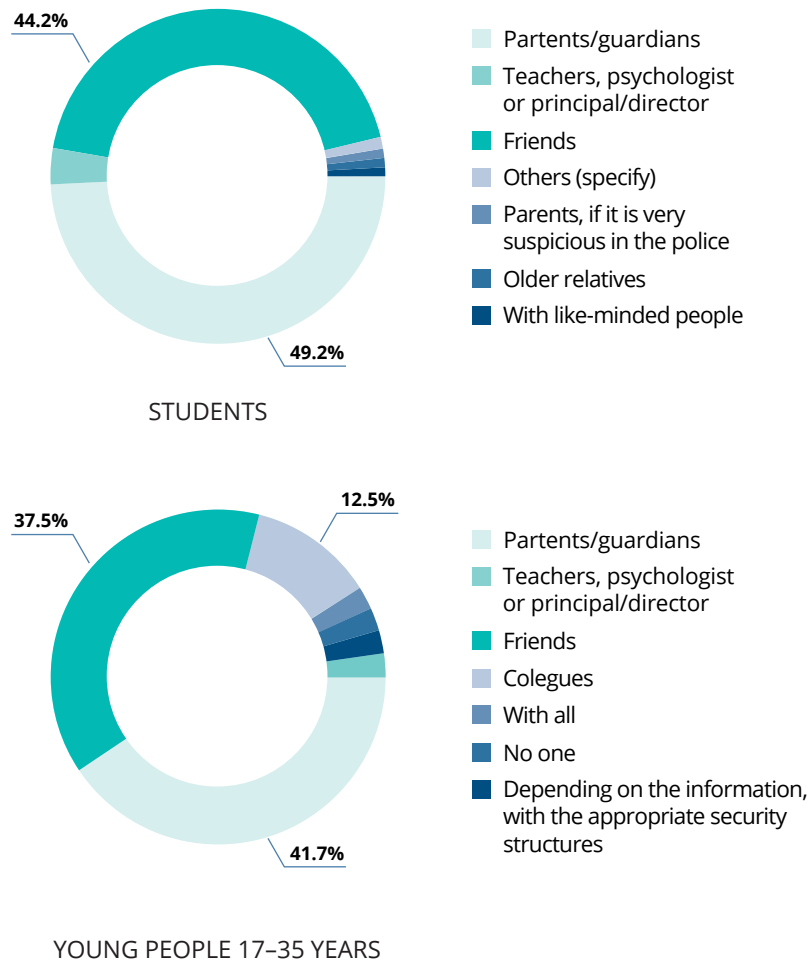
Graph 15. Question: *Have you ever had a lecture on safe internet use?*



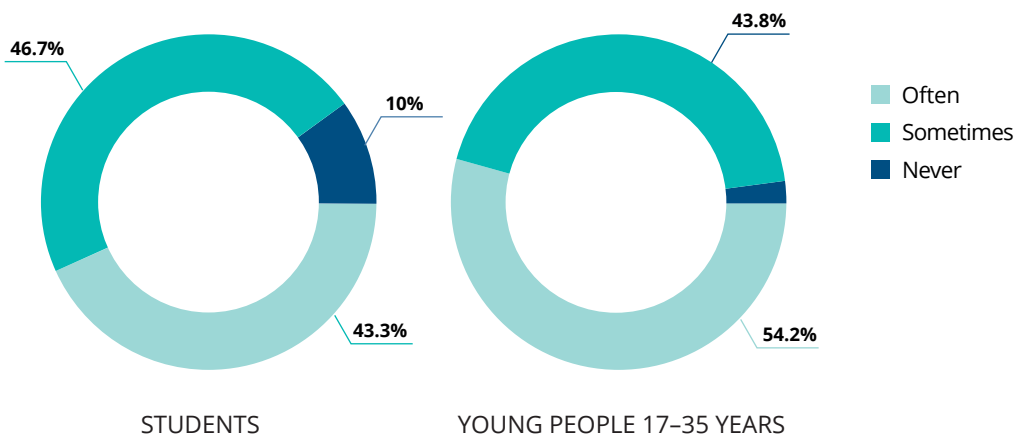
Graph 16. Question: *Have you ever had a lecture on how to access information?*



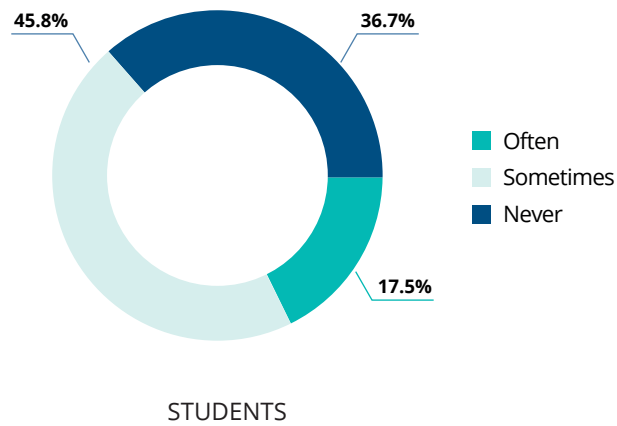
Graph 17. Question: *With whom would you share information that you find strange/inappropriate (for example, communication about religion, cult, belief, etc. other than what you are taught at home or in the environment in which you live)*



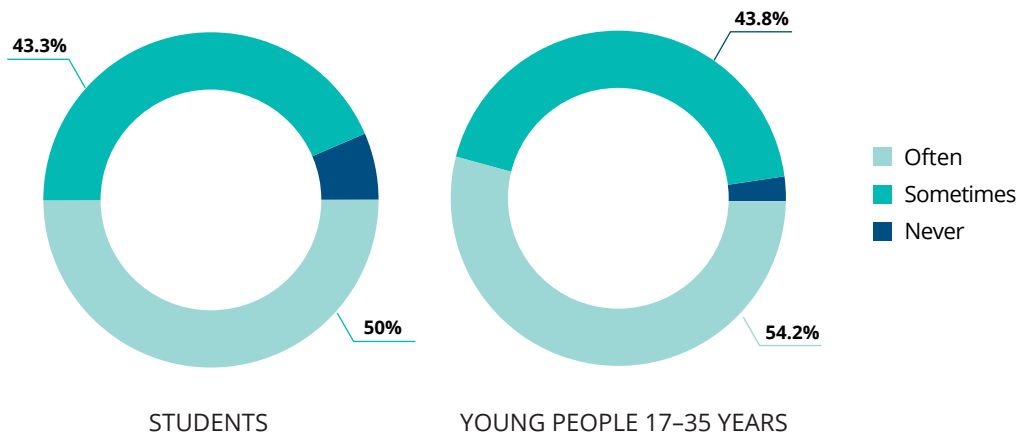
Graph 18. Question: *Have you ever had a lecture on how to access information?*



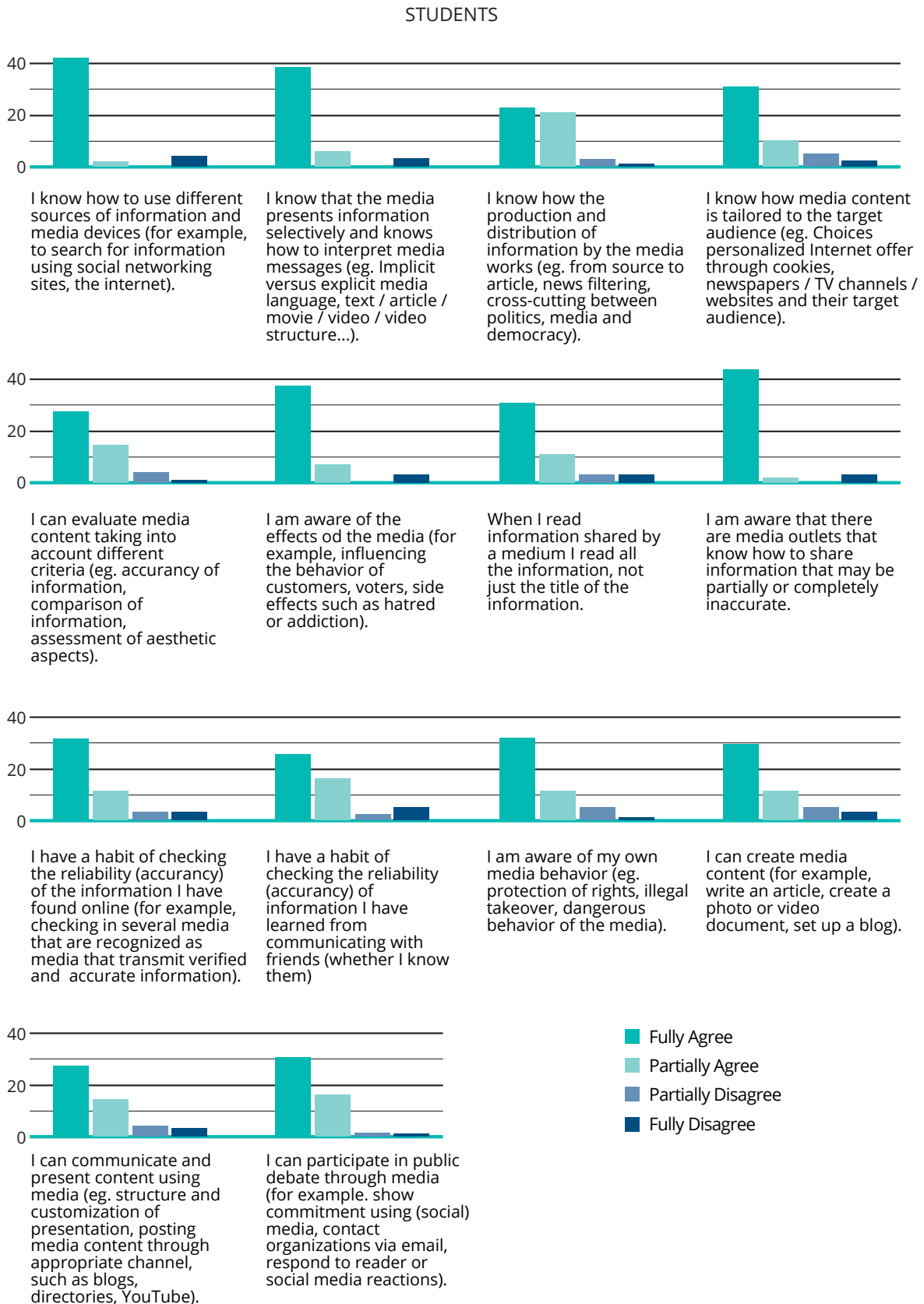
Graph 19. Question: How many times have teachers asked you to show them how to use the internet and smart technologies?



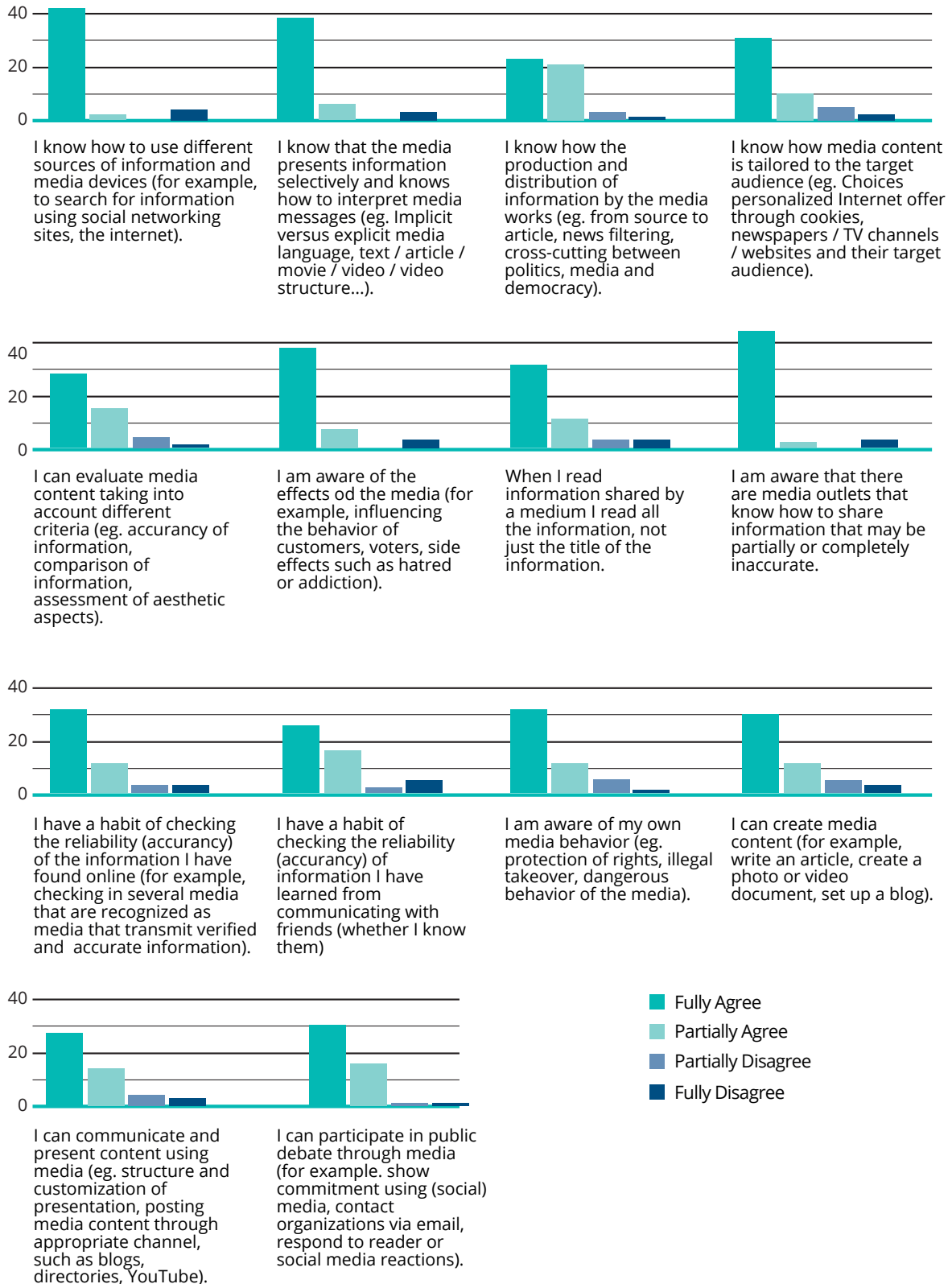
Graph 20. Question: Do you find it always useful to use privacy settings to control what is posted by the user or other users for you (e.g. can someone else's photos 'tagging' can be controlled, so you can choose the appropriate option for whom you want to see (the tag) or sometimes this procedure is too complicated and takes time to register or use the profile).



Graph 21. Question: Do you find it always useful to use privacy settings to control what is posted by the user or other users for you (e.g. can someone else's photos 'tagging' can be controlled, so you can choose the appropriate option for whom you want to see (the tag) or sometimes this procedure is too complicated and takes time to register or use the profile).

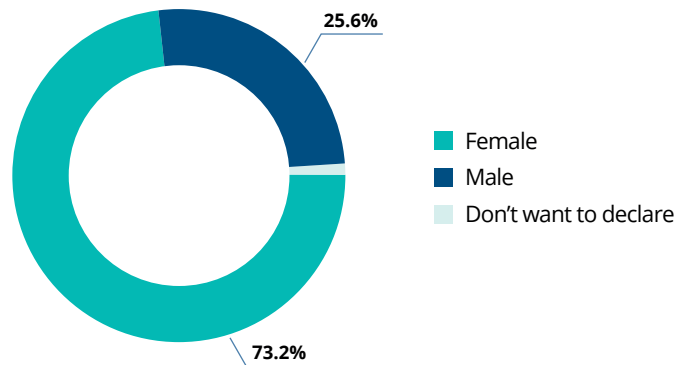


YOUNG PEOPLE 17-35 YEARS

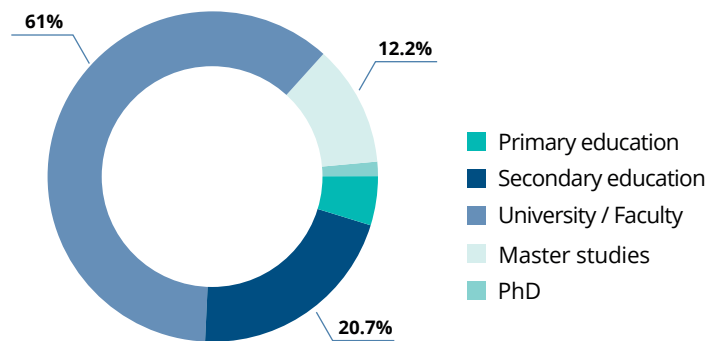


Responses from the questionnaire for online media literacy for teaching staff and parents.

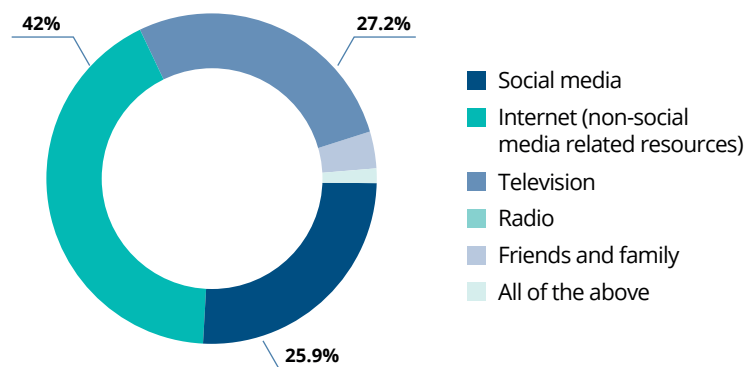
Graph 23. Gender



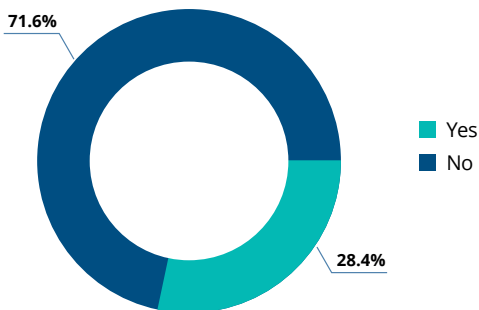
Graph 24. What is the highest level of education that you have completed?



Graph 25. What type of media do you usually get information from?



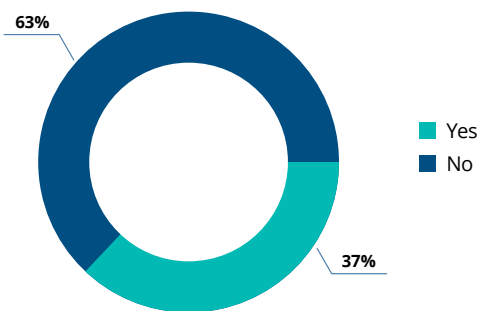
Graph 26. Have you ever been a victim of “fake news”



If the answer to the previous question is “Yes”, please answer how many times have you faced this problem and from what media?

- > Fb
- > News generators via social media
- > 100
- > Many times, mostly from internet portals
- > 4
- > Several times, portals that transmit everything “Kurir”
- > Internet
- > Everything they say is a lie, sitel kanal 5 and telma
- > Many times, from social networks and television media.
- > Electronic/Internet
- > 5
- > Social media
- > False information from tv. Alpha
- > Dozens of times from media without signed editors or journalists.
- > Several times
- > Many times, from different media

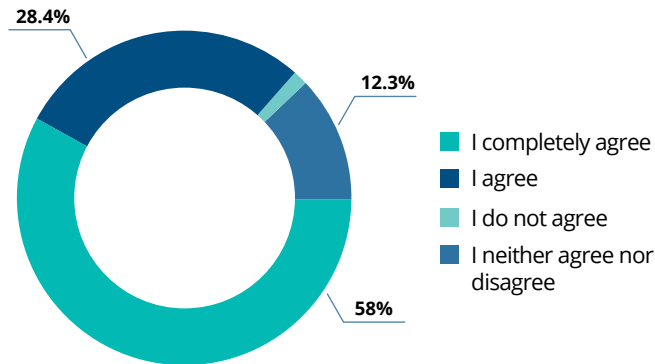
Graph 26. Have you ever been a victim of “fake news”



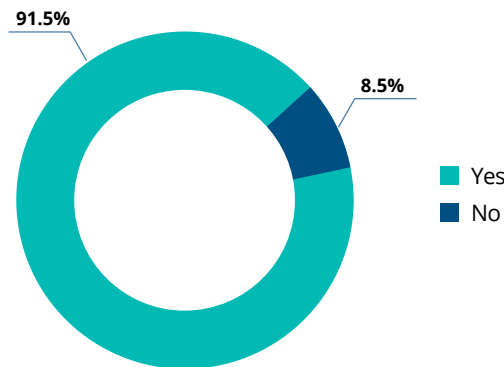
If the answer to the previous question is “Yes” please answer how you do it?

- > I read, listen to more media and try to see if something is objective
- > with additional search from trusted sources
- > Check comparison with another medium
- > I check online
- > Simply, you need to have wider information (if it is about electronic media, portals) or recognition of the persons, their environment, affinities, goals (if it is about social networks)
- > A billion times the above
- > Social media
- > I always want to insure the news I have heard
- > I have not faced
- > Several times
- > I look for books and more internet sites to be sure
- > I google search.
- > Often, Internet portals
- > I check the news on several media
- > Many times, from different media

Graph 27. Do you consider it important to fight against the “fake news”?



Graph 28. Do you think that people are more likely to fall for “fake news” on the Internet and/or social media?

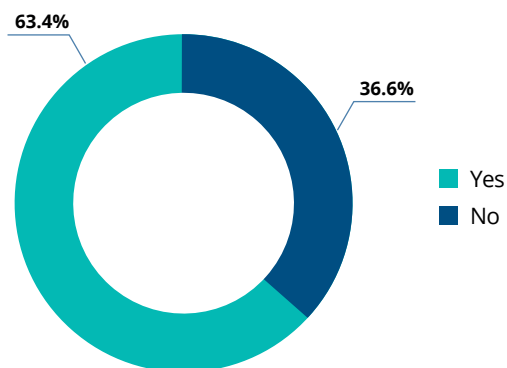


If the answer to the previous question is “Yes” please answer how you do it?

- › Because on social networks and various unverified media by quasi-journalists and quasi-experts it is allowed to publish any kind of information
- › Very few people can and do recognize them
- › Because people listen, read different portals, and share the same news at the same time. If you do not see or read anything other than what is said, people will believe the original news.
- › It is the Internet as a tool that many people use to get the information they need to be accurate and precise
- › For more advertising
- › Because of unverified information
- › Because we are constantly on social networks
- › They do not know how to check fake news and sources.
- › Because anyone can write on social networks
- › Many people are informed by social networks and are easily subjected to manipulation
- › The Internet, and especially social networks, is a wide space for placing “fake news”. “They have a large scale and are of different motives.
- › There is no control or responsibility, a politicized state
- › There is a lot of fake news
- › There is no control over the published contents.
- › Most often we have news that does not always tell the whole or true truth but it can be partially true or false.
- › People are confused by too much false information
- › That is why all media are bribed

- › Because we spend most of our time on social networks and constantly read various news that we trust.
- › Because I have a feeling that today, and in the future, it will be worse, everyone is “allowed” to post anything and everything in the literal sense of the word on any topic, and unverified information, rewritten things and then misinterpreted and so on.
- › Infor spreads faster. And it is more accessible example people who do not believe in Covid-19
- › because they can not check them quickly
- › Because the headline of a news item is short, and in the following text it means something completely different, so some people understand it in a completely different way and post fake news through no fault of their own.
- › Because everyone has access
- › Too much information every day
- › Because it is easier to display
- › There is no big control, someone publishes what he wants
- › The naivety of the people, and our mentality!
- › Because misinformation is being written.
- › Cannot because the website needs to be expanded with more clicks and shares
- › Fake news spreads and is shared faster.
- › Because there is no censorship
- › False headlines, insufficient critical thinking, information ...
- › There is a lot of information, some of which is certainly unverified or false
- › There is everything on the Internet

Graph 29. Do you think that “fake news” affect your trust in news organizations?

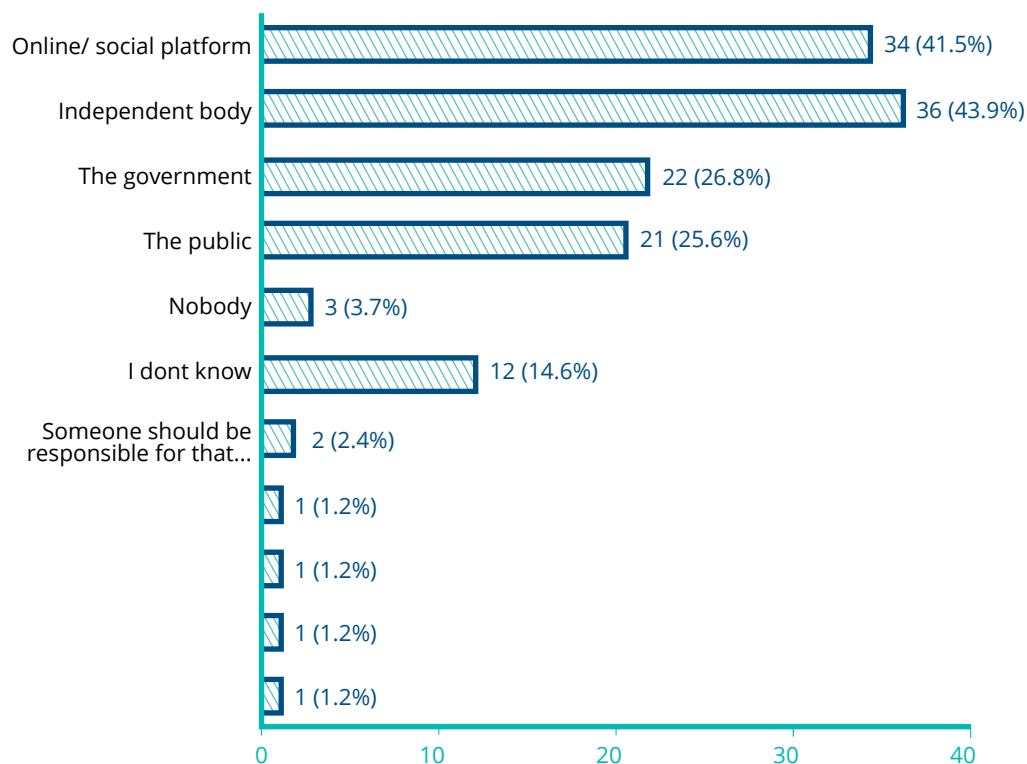


If the answer to the previous question is “Yes” please answer why?

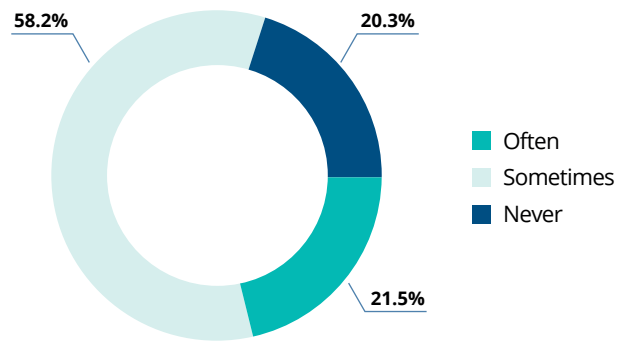
- › From so many media we have to create our own objectivity, and in the end, we do not really know what the real truth is
- › There is no relevance if it conveys false news
- › Then we watch and listen to the news from the news organizations with reservations.
- › Because I doubt what kind of intellectual staff they work with
- › If I come across false news then I doubt the truth
- › I do not read those media that spread fake news to get more clicks
- › Unfortunately, independent journalism, at least in its true sense, is rare. Journalists, in some cases, are victims of editorial policy,
- › of their own submissiveness to one side or the other, personal profiteering, and in many situations change of attitudes, placing “fake news” due to sensationalism, some interest, and so on. Professionalism means impartiality, expertise, good diction, use of standard language, dress code, respect for the interlocutor, whether there are invited guests, not brutal and reckless intrusion
- › They are politically colored and I do not trust them
- › There is often a distortion of the truth.
- › Journalists are biased and not always what they present is the whole or exact truth of an event and rarely anyone has borne the con-

- sequences for such a way of working unless someone initiates a lawsuit, everything else passes.
- > They are drowning in lies
- > By publishing fake news, they cause us a dilemma to trust them for further news.
- > Every day, the same news can be interpreted differently and when you lose the reality of what is true and what is not, trust is shaken.
- > My view of ratings by quality.
- > If they report false news they will lose the trust of the viewers
- > they lose their rating, they fall low by presenting lies and untruths
- > Because the news and the great influence of politics in our country, ie the great influence of political parties have not been checked for the most part
- > Present differently on the same questions (un) trust is built that way
- > I expect accurate news from news organizations
- > They ruin their own image
- > I do not read with confidence those who spread false news.
- > Because I feel cheated
- > It speaks for itself

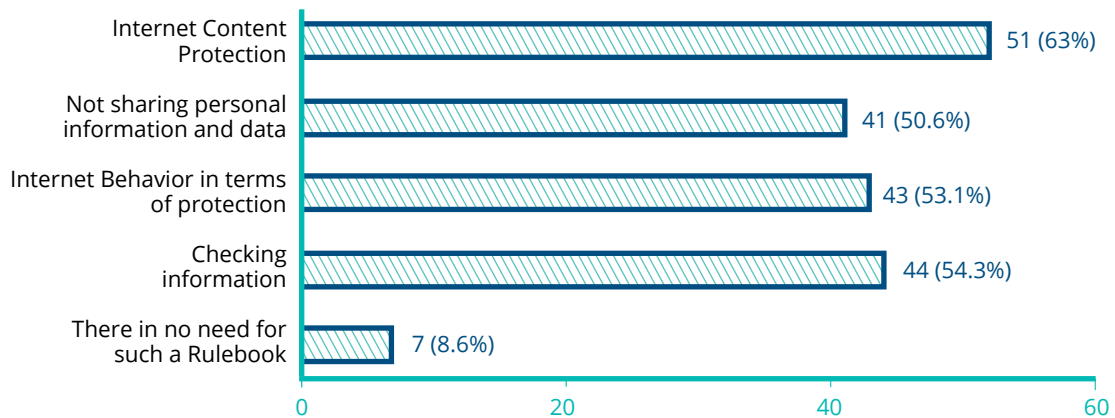
Graph 30. What is your opinion, who should be responsible for identifying “fake news” on social networks? (Please select all applicable answers)



Graph 31. Do you ask children/students (as teaching staff or parents) to show you what and how they use the internet and smart technologies for?



Graph 31. Do you think that there should be a Rulebook for the use of smart devices and internet in the school together with the students and parents/guardians which will contain guidelines for (indicate what you think the Rulebook should contain):



Annex-2: Where to seek help and report online harassment, mis, dis mal-information, and online radicalization

The timely and efficient reporting of cybercrime including online harassment, mis, dis mal-information, and online radicalization to the relevant authorities and ensuring meaningful follow-up of the crime reports is perhaps one of the most important countermeasures.¹⁶³

In general, the channels that the users can report online harassment are:

- › Trough police stations in person or via phone;
- › Report to the cybercrime and Digital Forensics unit at the MoI using the “Red Button” reporting scheme;
- › Directorate of Personal Data Protection if the case includes data abuse.¹⁶⁴

The MoI has dedicated phone numbers for the citizens to report any computer crime directly to the Department of Cybercrime and Digital Forensics and to any police station. The MoI has also set up the “Red Button” reporting scheme on its website, which is a national reporting system, which is available under a web portal (<http://redbutton.mvr.gov.mk/>). **On the intro page there is information that the application is intended to report any knowledge or information in the field of child abuse (up to 18 years of age), hate crime and incitement to violence, as well as human trafficking and radicalization.** When a citizen uses this system, the information

goes directly to a duty officer who directs the information to the relevant unit.¹⁶⁵

The MoI has a special e-mail address: **cybercrime@moi.gov.mk** where citizens can send e-mails about possible mis, dis and mal-information. The evidence they can send can be a “print screen” or a photo of the news or even a link where the information was published. After this, the MoI reviews the reports and decides if the report is confirmed to be true, and only if there is a crime included, they forward it to the Public Prosecutor’s Office.¹⁶⁶ However, if the perpetrator is not from North Macedonia, the MoI cannot prosecute them, but they can be detected, and the MOI can inform the authorities of the foreign country where the criminal is based.¹⁶⁷

One of the biggest issues is that there is no mechanisms for reporting online radicalization.

163 Report Advisory mission and workshop on online fraud and other cybercrime reporting mechanisms 20 - 21 February 2017, Skopje “The former Yugoslav Republic of Macedonia” Provided under the iPROCEEDS project (April 2017), <https://rm.coe.int/3156-26-iproceeds-report-reporting-mechanisms-mk/16807be381>, [Accessed 22 Nov. 2020].

164 Dzlp.mk. (2018). Your rights | Дирекција за заштита на личните податоци. [online] Available at: <https://dzlp.mk/en/node/2201> [Accessed 22 Nov. 2020].¹⁶⁵ Report Advisory mission and workshop on online fraud and other cybercrime reporting mechanisms 20 - 21 February 2017, Skopje “The former Yugoslav Republic of Macedonia” Provided under the

iPROCEEDS project (April 2017), <https://rm.coe.int/3156-26-iproceeds-report-reporting-mechanisms-mk/16807be381>, [Accessed 22 Nov. 2020].

166 Report misinformation - here's how and where [In Macedonian], (2020), <http://proverkanafakti.mk/prijavete-dezinformacii-eve-kako-i-kade/>, [Accessed 22 Nov. 2020].

167 Akademik (2014) ‘MBP апелира до граѓаните: Ако забележите педофилија на интернет – пријавете на [cybercrime@ moi.gov.mk](mailto:cybercrime@moi.gov.mk)’, <https://www.akademik.mk/mvr-ape-lira-do-graganite-ako-zabelezite-pedofilija-na-internet-prijavete-na-cybercrime-moi-gov-mk-4/>

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3. Agency For Audio And Audiovisual Media Services, (March 2019), "Media Literacy Policy", available at: http://mediumskapismenost.mk/media/2019/04/Media-Literacy-policy_online-version.pdf
4. Agency For Audio And Audiovisual Media Services, (March 2019)
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