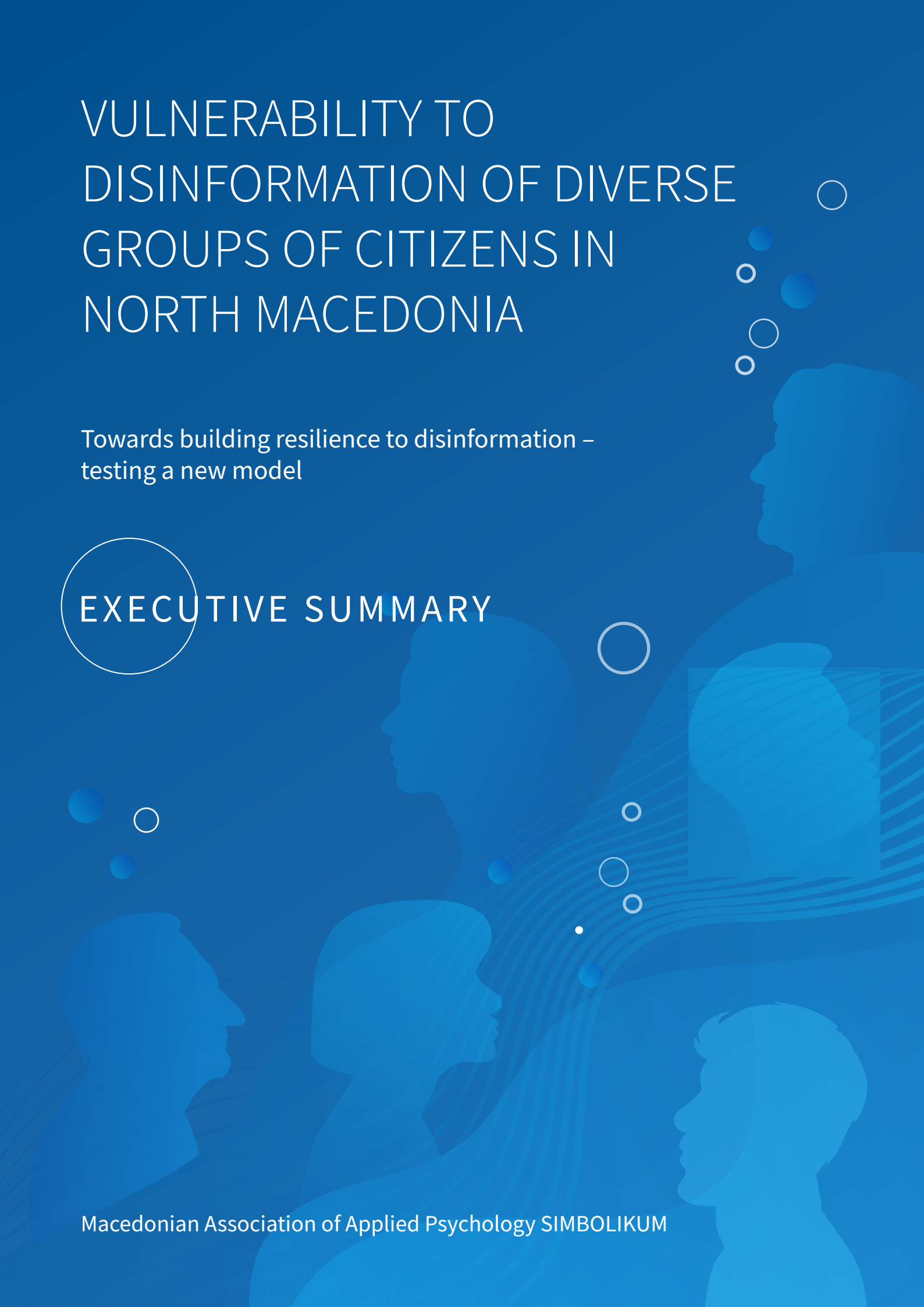


VULNERABILITY TO DISINFORMATION OF DIVERSE GROUPS OF CITIZENS IN NORTH MACEDONIA

The background features a series of overlapping human silhouettes in various shades of blue, facing right. Interspersed among these silhouettes are several circles of different sizes and colors, including white, light blue, and dark blue. Some circles are solid, while others are hollow. The overall composition is layered and modern.

Towards building resilience to disinformation –
testing a new model

EXECUTIVE SUMMARY

Research Title:

Vulnerability to Disinformation of Diverse Groups of Citizens in North Macedonia

Publisher:

Institute of Communication Studies,
17-1-1 Jurij Gagarin Str, Skopje
www.iks.edu.mk

Published by:

Associate Professor Dr Zhaneta Trajkoska

Edition:

ResPublica  respublica

Authors:

Macedonian Association for Applied Psychology SIMBO-
LIKUM

Professor Eleonora Serafimovska, PhD
Jordanka Cherepnalkova-Trajkoska, M.A

Editors:

Associate Professor Dr. Zhaneta Trajkoska, Aleksandra
Temenugova

Translated from Macedonian into English language.

Title of the original:

РАНЛИВОСТ НА ДЕЗИНФОРМАЦИИ КАЈ РАЗЛИЧНИ
ГРУПИ ГРАЃАНИ ВО СЕВЕРНА МАКЕДОНИЈА -
Кон развивање на отпорноста на дезинформации –
тестирање нов модел

Translated into English by:

Stanka Radeva

Graphic design:

Tatjana Koceva Spirova

Year:

2023

CIP - Каталогизација во публикација
Национална и универзитетска библиотека "Св. Климент Охридски", Скопје

316.776.23:316.66(497.7)(047.31)

316.776.23:150.9(497.7)(047.31)

37:316.774]:303.2(497.7)(047.31)

SERAFIMOVSKA, Eleonora

Vulnerability to disinformation of diverse groups of citizens in North Macedonia [Електронски извор] : towards building resilience to disinformation – testing a new model / [authors Eleonora Serafimovska, Jordanka Cherepnalkova-Trajkoska ; translated from Macedonian into English language, translated into English by Stanka Radeva]. - Skopje : Institute of communication studies, 2023. - (Edicioni ResPublica)

Начин на пристапување (URL):

<https://respublica-edu.mk.b-cdn.net/wp-content/uploads/2023/04/ranlivost-na-dezinformacii-en.pdf>.

- Превод на делото: Ранливост на дезинформации кај различни групи граѓани во Северна Македонија : кон развивање на отпорноста на дезинформации – тестирање нов модел. - Текст во PDF формат, содржи 78 стр., илустр. - Наслов преземен од екранот. - Опис на изворот на ден 18.04.2023. - Фусноти кон текстот. - Библиографија: стр. 71. - Содржи и: Annex

ISBN 978-608-4805-23-6

1. Cherepnalkova-Trajkoska, Jordanka [автор]

а) Дезинформации -- Ранливост -- Социо-психолошки аспекти -- Македонија-- Истражувања

б) Медиумска писменост -- Мерење -- Македонија --Истражувања

COBISS.MK-ID 60099077

SUMMARY

1.

INTRODUCTION

With the rapid rise and explosion of technological development and subsequently the increased access to a wealth of information in fractions of a second, we as humanity have been thrust into the information era. While still needing to adapt to the vast space of all kinds of information, we almost fully unprepared have entered a newer era, the disinformation era. There is an explosion of anyone's opinions, social media posts, virtual debates, blogs and webpages, thus anyone can find data and information about anything, as well as release information about anything in the cyberspace. Even if we became aware of the existence of disinformation, even if we knew all the techniques that disinformation creators use to influence us, even if we trained how to spot them and counter disinformation, they can potentially be immense, which can easily in an instant exhaust the full capacity of the individuals, make groups vulnerable, threaten societies. It has already become clear that the resilience of the individual to the ravaging power of disinformation has to become one of our main priorities in education.

The Institute of Communication Studies (ICS) has been implementing the project Fact-Based Journalism for Raising Awareness and Countering Disinformation in the Media Space in North Macedonia (Use Facts) **which should strengthen the resilience of the broad public and vulnerable groups in Macedonia to disinformation**. It is financed by the British Embassy Skopje and its timeframe is 2022-2025.

The goal of the project is to provide support to citizens, journalists and civil society organisations to increase their understanding for the source, intentions and influence of disinformation in society. The project will produce in-depth and investigative journalistic

stories and educational content and offer resources that would equip citizens to identify disinformation, scrutinise their sources, intentions and effects. At the same time, the project has an objective to encourage citizens to engage for increased transparency of institutions in order to narrow the space for spread of disinformation, and on the other hand encourage media and institutions to provide wider access to credible information and news.

One of the activities within the project is conducting this research for susceptibility or vulnerability of people to disinformation. Through this research ICS aimed to test its hypothesis that young people, the elderly (above 60 years) as well as people who are socio-economically fragile are particularly susceptible to disinformation. Therefore, a comprehensive analysis was conducted, of research so far, as well as field research of a sample of potentially vulnerable categories to disinformation. The main objective was to establish the individual factors, motives and barriers for identifying and countering disinformation. The aim is to use the research data for scientific and educational purposes, providing recommendations and guidelines for creating educational content and activities for decreasing the susceptibility of the citizens to disinformation.

This research is first of this kind in the Republic of Macedonia. Its uniqueness is in defining the potential factors, motives and barriers for identifying disinformation and an effort for their measurement and quantification. The cause and effect consequences were researched, there is a hypothesis for a new theoretic model of influence which was tested. In this model the central term is media literacy and in narrow terms – news media literacy. Media literacy enables people to have competence, knowledge and understanding to

completely use the possibilities that traditional and new communication media offer. To be media literate (especially) online is of fundamental importance for how people behave as consumers, users and “digital” citizens. The central role that media literacy plays online has implication on other spheres of people’s lives. This enables users to participate in public life, vote in elections, maintain healthy relationships with others, access and receive information and critically formulate and express opinions.

Until now, researches in the Republic of Macedonia have been researching media literacy on a general, apparent level. The largest share of research is based on self-evaluation of the individual digital competence or level of media literacy, so this research is a pioneer in the intention to dive deeper into the factors and motives of the individual for that literacy. This research is different from all others because for the first time there is designed an adequate scale for measuring media literacy and news media literacy index.

The subject of this research is what are the psychological and societal drivers of media literacy and whether media literacy can lead to more successful recognition of disinformation in media (primarily online news).

METHODOLOGY:

<p>Aim of the research</p> <p>Determination of vulnerable groups aged 15+ for research purposes</p>	<p>a brief overview</p> <p>Determining individual factors, motives, and barriers to recognising and countering disinformation: testing a model of disinformation recognition.</p> <p>Taking into account all the determinants/components of vulnerability, young people between the ages of 18 and 28, adults over 60, as well as people from the socially vulnerable category (recipients of social benefits) were identified as vulnerable groups in the research. A key criterion for defining vulnerable groups is the component that refers to the capacities for recognising and countering disinformation.</p>
<p>Subject of the research</p>	<p>The relationship of media literacy to recognising disinformation cues in online news: testing a new model.</p> <p>Media literacy is understood as a construct of three components:</p> <ol style="list-style-type: none"> 1. news media literacy: <ol style="list-style-type: none"> 1.1 need for cognition 1.2 media locus of control 1.3 media knowledge 2. awareness of the existence of barriers in the process of recognising disinformation 3. activation component: <ol style="list-style-type: none"> 3.1 motivation for news consumption 3.2 motivation to learn what disinformation is
<p>Research questions</p>	<p>What are the individual factors, motives and barriers for recognising cues of disinformation?</p> <p>More specifically, the overall analysis was based on the replies from few basic questions:</p> <ul style="list-style-type: none"> ● How successfully can news media literacy be measured? ● Is there correlation between news media literacy and the motivation for following news and the motivation for learning what is disinformation? ● Is there a correlation between news media literacy and the awareness for existing barriers in the process of identifying disinformation? ● What are the sociological factors related to media literacy? ● Is there correlation between news media literacy and digital literacy? ● Is there a media literacy construct? ● Can media literacy influence the ability to identify disinformation in online news? ● Does media literacy mean to be well-informed about current, societal and political topics?
<p>Research techniques</p>	<p>Review of relevant literature</p> <p>A structured questionnaire survey in online and paper form with students and pensioners.</p> <p>Focus group with recipients of social benefits</p>
<p>Sample</p>	<p>Convenient and purposive</p> <p>The survey included a total of 193 students and 98 pensioners. The focus group included 16 people from socially vulnerable category.</p>

ASSUMED (THEORETICAL) MODEL OF THE FACTORS AND MOTIVES FOR IDENTIFYING AND COUNTERING DISINFORMATION

There is a theoretical model in the scientific literature that is already subject to scientific testing that states that news media literacy can be measured through three aspects of an individual: through their need for cognition, through their locus of control, and through their media knowledge¹. The model assumes that individuals who are news literate have a greater need for cognition and will be those who enjoy thinking, for them it is an activity they like and do willingly. Individuals who are news literate will also have an internal locus of control, meaning they will tend to believe that they control the media and not vice versa. Individuals who are news media literate will continue to be those who have a greater amount of knowledge about media operation, structure and influence.

The model in this research is extended taking into account the complexity and the assumption of the involvement of other components that could be related to news media literacy and, consequently, could influence the process of disinformation recognition. Thus, two more important components were also included:

- activation component
- awareness of the existence of barriers in the process of recognising disinformation.

Activation component in this new extended model includes:

- a)** motivation, tendency, desire to follow the news, where this is done because one wants to (intrinsic, internal motivation) or because one has to (extrinsic, external motivation) and
- b)** motivation for learning what disinformation is, which would mean interest and preparedness for education to successfully recognise and counter disinformation.

Awareness of barriers to recognising and dealing with disinformation is awareness of the existence of obstacles, difficulties in that process. There are individuals who are fully aware that their emotions (emotional state), their lack of knowledge, experience or insufficient interest in a topic can be an obstacle to correctly distinguish what is true and what is false in the news. The expanded model of media literacy, apart from news media literacy which included the three components (need for cognition, locus of control and media knowledge), also includes the activation component through the motivation (intrinsic/extrinsic) for news consumption, the motivation for learning what disinformation is, as well as the awareness of the existence of barriers in that process.

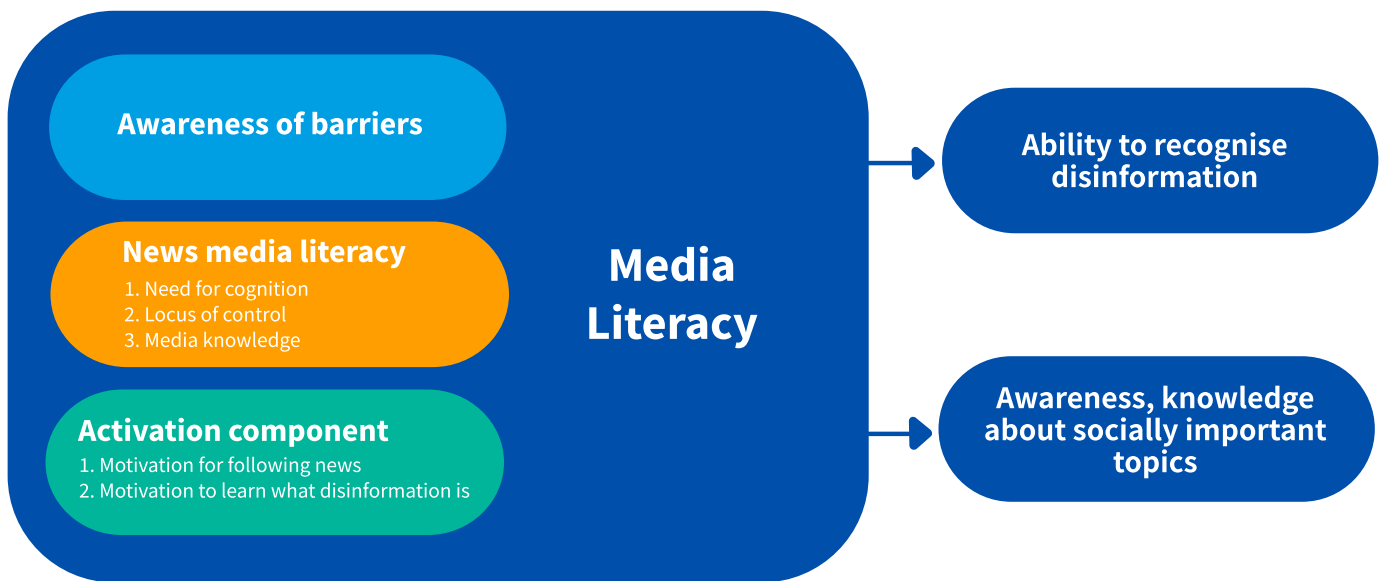
Finally, this complex construct called media literacy will mean the ability to recognise disinformation. It will also mean well-informed and responsible citizens, who base their decisions and behaviours on conscious thinking and verified information that they receive daily through the media.

Very simply speaking, this model assumes that individuals who are media literate will be aware of the existence of disinformation, will actively and consciously enter the process of following news, and will know and be able to recognise disinformation and counter it. In this manner, they become responsible citizens who, apart from being less vulnerable to disinformation, will also be active subjects in society both as consumers and as customers, voters, educators, teachers...

This theoretical model has been tested in research and can be graphically presented as follows.

¹ Maksl, A., Ashley, S., Craft, S. (2015). Measuring News Media Literacy, *Journal of Media Literacy Education* 6(3), 29 – 45, https://www.researchgate.net/publication/286937368_Measuring_News_Media_Literacy

Figure no. 1 Model for resilience to disinformation



4.

KEY FINDINGS FROM THE RESEARCH

- *Measuring news media literacy:* News media literacy can be successfully measured with 3 scales: Need for Cognition Scale (CSC), the Media Locus of Control Scale (MSC) and the Media Knowledge Scale (MKC). The News Media Literacy Index (NMLI) is constructed from these three components.
- *Relationship of news media literacy to motivation to follow news and motivation to learn about disinformation:* News media literacy is related to motivation to follow news. Among young people, this literacy is more related to intrinsic (driven by internal motivations) motivation (IM), and among pensioners it is related to both intrinsic and extrinsic (driven by external motivations) motivation (EM). News media literacy is also related to motivation to learn and educate about disinformation (MSD).
- *Correlation of news media literacy with awareness of barriers in the process of disinformation recognition:* News media literacy is related to the awareness of barriers in the process of recognising disinformation.
- *Sociological factors related to news media literacy:* Among young people, gender, ethnicity and place of residence (urban/rural environment) are associated with news media literacy, among pensioners only place of residence.
- *Correlation of news literacy to digital literacy:* Among young people, news literacy is correlated to participation in a media/digital literacy programme. Among pensioners, news literacy is unrelated to digital literacy.
- *Constructing media literacy:* The strong interrelationship of the four components: news literacy, intrinsic motivation and motivation to learn about disinformation (in students, and in pensioners additionally extrinsic motivation) as well as the awareness for the existence of barriers in the process of recognising disinformation shows that one can talk about the existence of a complex construct that can be called media literacy.
- *Correlation of media literacy with recognition of disinformation in Internet news:* Media literacy is correlated with the ability to recognise disinformation in online news among students, but not among pensioners.

- *Correlation of media literacy with good information about current, societal and political topics:* Media literacy in its entirety also means good information about current, socio-political topics.
- *Media literacy among socially vulnerable categories:* Regarding the Roma group, recipients of social benefits, despite the low level of education, or the lack of education, the impression is that there is sufficient awareness of the existence of media that constantly market various information; need for cognition, especially for information that means their livelihood, as well as “common sense” reasoning.

● **CRUCIAL FINDING:**

In summary, the answer to the main research question about what are the factors, motives and barriers in the process of disinformation recognition will be:

The factors in the process of recognising disinformation are:

- The need for cognition,
- The belief that we have control over the information we receive from the media
- Knowledge of the structure, operation and influence of the media.

= These are actually the three components that determine news media literacy.

The motives in the process of recognising disinformation are:

- Motivation for following the news, which can be intrinsic (a position that news is followed for people own good or because it is wanted) and/or extrinsic (the news is followed because it is necessary, for some external reward, even when there is no use from them)
- Motivation for learning, education and self-improvement in the sphere of activity of disinformation and

Barriers in the process of recognising disinformation are:

emotions, insufficient knowledge, insufficient experience, insufficient interest and insufficient importance attached to certain topics that the media do not inform us about.



5.



PROFILES – DERIVED FROM RESEARCH AND THEORETICAL PROFILE OF MEDIA LITERATE INDIVIDUAL

Summarising all the data (both from the univariate analysis as well as from testing the disinformation recognition model two groups of individuals could be profiled among both students and pensioners.

Apart from them, a profile was constructed based on the responses of the participants in the focus group with persons from the socially vulnerable category, as well as a “desirable” profile, according to all the results obtained and their analysis.



STUDENTS

Students with LOWER media literacy 	Students with HIGHER media literacy 
<ul style="list-style-type: none"> • More often female • No media/digital literacy education • From a rural environment • Equally from all ethnic communities 	<ul style="list-style-type: none"> • More often male • Participation in media/digital literacy education • From an urban environment • Equally from all ethnic communities
<ul style="list-style-type: none"> • Lower need for cognition • Lower locus of control • Lower level of media knowledge <p style="text-align: right;">= lower news media literacy index</p>	<ul style="list-style-type: none"> • Higher need for cognition • Higher locus of control • Greater level of media knowledge <p style="text-align: right;">= higher news media literacy index</p>
<ul style="list-style-type: none"> • Lower intrinsic motivation to follow news • Less motivation to learn about disinformation • Less awareness of the existence of barriers in the information process 	<ul style="list-style-type: none"> • Higher intrinsic motivation to follow news • Greater motivation to learn about disinformation • Greater awareness of barriers in the information process
<ul style="list-style-type: none"> • Less knowledge about the EU integration of RNM • Less knowledge about climate change • Less interest and attaching less importance to topics like the EU integration of RNM • Less interest and attaching less importance to topics such as climate change 	<ul style="list-style-type: none"> • More knowledge about the EU integration of RNM • More knowledge about climate change • Greater interest and attaching greater importance to topics such as the EU • Greater interest and attaching greater importance to topics such as climate change
<p>Less successful in recognising disinformation cues in online news</p>	<p>Greater success in recognising disinformation cues in online news</p>



PENSIONERS

Pensioners with LOWER media literacy

- Equally male and female
- Equally from all ethnic communities
- From all levels of education
- From a rural environment

- Lower need for cognition
- Lower locus of control in relation to the media
- Lower level of media knowledge

=

lower news media literacy index

- Lower intrinsic motivation to follow news
- Lower extrinsic motivation to follow news
- Less motivation to learn about disinformation
- Less awareness of barriers in the information process

- Less knowledge about EU integration process
- Less knowledge about climate change
- Less interest and attaching less importance to topics such as EU integration of the Republic of Macedonia
- Less interest and attaching less importance to topics such as climate change

Extremely low performance in recognising disinformation cues in online news

Pensioners with HIGHER media literacy

- Equally male and female
- Equally from all ethnic communities
- From all levels of education
- From an urban environment

- Higher need for cognition
- Higher locus of control
- Greater level of media knowledge

=

higher news media literacy index

- Higher intrinsic motivation for following news
- Higher extrinsic motivation to follow news
- Greater motivation to learn about disinformation
- Greater awareness of barriers in the information process

- More knowledge about EU integration process
- More knowledge about climate change
- Greater interest and attaching greater importance to topics such as EU integration of the Republic of Macedonia
- Greater interest and attaching greater importance to topics such as climate change

Extremely low performance in recognising disinformation cues in online news

Persons from socially vulnerable categories

Summarising the data obtained from the interviews in the focus group of people who are recipients of social benefits, one group could be profiled.

Profile of persons at social risk

- Women, Roma
- From 22 to 53 years, average age 34.4 years
- 75% have no primary education
- Unemployed
- A settlement with a dominant Roma population, Shuto Orizari
- All welfare recipients

- No media/digital literacy education
- No news media literacy
- No news is being followed
- A small percentage is primarily informed by television
- Only one participant reads news online
- They check information that is important to them through personal social contacts (“on the street”)

- Extrinsic motivation for following news
- Instrumental need to follow media: they only follow what is most important to them - news related to social benefits

- Ignorance of socially important topics
- Insufficient interest in following socially important topics
- Ignorance of the concept of disinformation

A media literate person

Based on theory and research findings, one could profile what a desirable model of a media literate person who successfully counters disinformation looks like. All educational programmes whose focus is building resilience to disinformation should aim for this model.



A media literate person desired profile

- Equal representation of males and females
- Equal representation from all ethnic communities/groups
- Equal representation from both urban and rural areas
- Equal representation of all age groups

Access to various educational programmes

- Continuous education for media and digital literacy according to needs, abilities and individual traits.
- Participation in workshops based on experiential learning, the purpose of which is to raise awareness of psychological mechanisms in the process of recognising disinformation.

HIGHER MEDIA LITERACY

- Higher news media literacy index
- High need for cognition through developing intellectual curiosity
- A higher locus of control developing activities that will strengthen the position that it depends on us how we will be informed/disinformed
- Greater level of media knowledge

Higher activation component in regard to media and information

- Higher intrinsic motivation to follow news
- Greater motivation to learn, education about disinformation, inclusion in media literacy programmes

Greater awareness of the existence of barriers in the information process

- Greater awareness of the role of emotion, knowledge, experience and interest in recognising disinformation

A responsible and participative citizen who makes informed decisions, i.e. based on facts

- Greater interest and attaching greater importance to societally important topics
- Greater awareness and more knowledge about societally important topics
- Proactivity and involvement in social processes through the use of media

Great success in recognising disinformation cues the media space

6.

RECOMMENDATIONS



General recommendations

When planning any content, you should take into account:



The specifics of the group to which the activities are intended;



In media literacy training, it is desirable to include spelling exercises, paying attention to typographical errors in the texts;



Apart from the content of the activities, the approach to work is of key importance, which must always encourage intellectual curiosity and stimulate creativity;



It would be desirable to include contents that strengthen the communication skills of the participants.

Recommendations related to the findings

1

News literacy testing -It is recommended that before starting any educational programme, participants to be tested using the instrument used to measure news media literacy in this study, in order to get an accurate picture of the level of news media literacy and to target the educational content and objectives accordingly.

4

Media knowledge – in an interesting and interactive way to present the things which are important for understanding how media operate.

2

Need for cognition. Activities or tasks should include elements that encourage intellectual curiosity, research, developing abstract thinking, logical thinking, solving dilemmas, working out complex questions, debating, etc.

5

Developing intrinsic motivation - creating a learning environment that will promote: 1. Independence 2. Connecting with people on a healthy basis and 3. A sense of own competence

3

Media locus of control. Two things are important to learn to develop internal control: personal responsibility, that everything that happens to us is the result of our personal choices and decisions, and a desire for constant learning (open mind /Eng. growth mind-set/ vs. closed mind / Eng. fixed mind-set²).

6

Developing motivation to learn about disinformation - presenting the power of disinformation by exposing its potentially enormous power (both in a positive and negative sense), as well as by exposing the impact on people's lives with examples from reality, sharing personal experiences, etc.

² People with an “open mind” always seek to improve their abilities and talents through hard work, planning, consideration and the opinion of others; “closed-minded” people believe that they simply have natural talents that do not need to be improved. Open-minded people, because they are constantly trying to make good decisions, will be motivated by things they control.

- 7 *Developing awareness of the existence of barriers in the process of recognising disinformation*- of crucial importance for this awareness is the development of a critical opinion, but also the development of emotional literacy and competence.
- 8 *Developing knowledge and awareness of cognitive, social and emotional processes* which makes people “stick” to disinformation, and vulnerable to forming wrong beliefs and drawing wrong conclusions.
- 9 *Conduct additional research on different age groups, on groups with different professions, from different backgrounds.* This recommendation is based on findings regarding the alarmingly low knowledge of respondents, especially students, on issues of societal importance such as European integration and climate issues. Further research on a representative sample of key demographics will also be needed to draw valid conclusions regarding the factors, motivations, and barriers in the disinformation recognition process.

Recommendations for activities with socially vulnerable groups

- 10 Regarding the Roma group, recipients of social benefits, who are socially vulnerable, despite the low level of education, the impression is that there is sufficient awareness, need for cognition, “common sense” conclusion. Thereto, this group may be amenable to basic training on the concept and functioning of the media, if the content of the training is adapted to the interests of this group. This group is not recommended to be a target group for training, but there can be a start with a small pilot project, and the activities can be carried out in the environment in which they live due to the feeling of security among this group. If there is a decision to work with this group, a more detailed analysis of their capacities and needs should be done.

You can read the full research report here ([link](#)).

