STATUS OF SENIOR MEDIA LITERACY IN THE SLOVAK REPUBLIC

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ABSTRACT:

According to the last population census in Slovakia (in 2021), senior citizens, or people over 65 years of age make up 17% of the total population of Slovakia. Despite this, we cannot consider seniors, or those of the age of 65 and older inactive or completely unproductive, considering that this is not only a consequence of the aging of the population, but to a large extent the growth of the average life expectancy of people in our society. Many seniors, or people in the post-productive age in this period of life still or occasionally work, maintain contact with family and acquaintances or even actively participate in civic life. In this regard, we therefore consider it important to pay attention to the level of media literacy of seniors who, more or less, use media and digital technologies in their lives and are thus exposed to their positive and negative effects. Although education in the field of media education mainly focuses on children and youth, it is necessary to realise that our society is created, shaped and decided by adults of productive and post-productive age. The goal of our study is therefore to map the current state of media literacy of Slovak seniors in the area of their user skills and communication skills related to the use of media and digital technologies, and their ability to critically understand. We therefore monitor the state of knowledge about the media and a critical view of them, the ability to critically analyse media content and the practical skills of seniors in relation to the media. The presented study reflects the results of quantitative research carried out on a representative sample of Slovak seniors using the questionnaire method. The result of the study is the relevant conclusions resulting from the empirical investigation and a summary of proposed recommendations for improving the current situation.

KEY WORDS:

abilities, knowledge, media education, media literacy, senior, senior population, skills

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1 Introduction – Senior as a Media User

Over the past two decades, society has undergone significant changes related to digitalisation. This phenomenon has affected practically all areas of life and affects all generations. In connection with media education and the effort to constantly increase the level of media literacy, there is often talk about the so-called at-risk groups – children, youth, medically and socially disadvantaged and seniors. Seniors (people aged 65

and over) make up almost a fifth of all inhabitants of Slovakia and, although in most cases they are retired people or people who are no longer active on the labour market, it is necessary to look at them as people who continue to participate in the formation and direction of our society – they participate in elections, are part of the health system and pass on their experience to younger generations. Such a characteristic implies the need for the continuous education of seniors in the field of media and related issues so that their decision-making is informed, aware and conditioned by critical analysis of information.

Media are, without a doubt, a part of the everyday lives of older people. Naturally, people of retirement age are more inclined to 'traditional media' – television, radio or print media. However, they are not (and should not be) excluded from the online space either. However, in order to be able to ensure the safe movement of seniors in cyberspace, we must first of all develop the pillars of media literacy – the knowledge, abilities and skills of seniors in the field of media issues. We are talking about knowledge related to the functioning of the media, their ownership, regulatory mechanisms; skills to look critically at the media and their contents; and about technical skills related to accessing media content through technology.[1] On the other hand, one should not forget certain specifics associated with the use of digital media by seniors, which bring opportunities as well as threats in this context. Their attitude, approach and rate of use of these media and technologies are often significantly influenced by their health status, but also by challenging changes in their lives (being retired, becoming widowed, etc.).[2]

Overall, however, the relationship of seniors to information and communication technologies (ICT) is improving on a long-term scale. According to the *Digitálna gramotnosť na Slovensku 2023* (in English *Digital Literacy in Slovakia 2023*) study,[3] the share of seniors who refuse to adapt to current trends and do not want to work with technology is decreasing. On the other hand, however, the study points to the fact that seniors over the age of 65 and also seniors with a lower level of education have problems in this area. Positive news in this area, however, comes from previously conducted research from neighbouring countries. The report on the state of media literacy in the Czech Republic from 2011 says that seniors have a significantly more open attitude towards ICT if they were led to use it by a younger generation – e.g., children or grandchildren.[4] In his study, Tomczyk gives an example from Poland, where seniors wanted to participate in forms of short-term updates to their education in the field of media and ICT precisely so that they could further develop and fulfil their personal needs.[5] Moreover, even for seniors, the use of the Internet and communication as a way to socialise and participate in the community can also be a tool for strengthening intergenerational relationships.[6] On the other hand, it turns out that if seniors already use technology and digital media, their approach to it is often lax and one could even say irresponsible. According to Velšic, only 16% of seniors verify the information obtained and this group of the population also shows a lack of experience in the field of cyber security.[7]

Media education is now a mandatory part of education in most developed countries. In the Slovak environment, media education as a tool for increasing the level of media literacy is anchored in the context of lifelong learning. *Koncepcia mediálnej výchovy v Slovenskej republike v kontexte celoživotného vzdelávania* (in English *Concept of Media Education in the Slovak Republic in the Context of Lifelong Education*)[8] defines,

on the basis of European legislative documents, media education as education that should be aimed at adults today and in the future. In this sense, however, we cannot forget the older generations, who during their lifetime did not have as many opportunities to get used to digital media and technologies. Therefore, it is important to pay attention to them and increase the level of their media literacy additionally, in their post-productive age, with the aim of preventing social exclusion or deepening of the generation gap.

2 Objectives and Methods

The subject of investigation in the presented study is the level of knowledge, abilities and skills of Slovak seniors in the field of media literacy. Seniors (people aged 65 and over) make up more than 17% of the total population in Slovakia (929,181 seniors out of a total of 5,449,270 inhabitants of the Slovak Republic).[9] Compared to the previous implementation by monitoring the number of the country's population, we recorded an almost five per cent increase in the senior population. Population in the post-productive age makes up a relatively large part of the population of our country and, although it is a group of people that is largely inactive in the work sphere, it is important to realise that this group of the population continues to actively participate in civic and social life. Seniors, just like the population of productive age, participate in the formation of our society in various ways, are involved in public affairs and are a full-fledged part of society.[10] On the other hand, from the point of view of education, they receive disproportionately less attention, especially in the area of increasing their media, information and digital literacy skills, which we consider the so-called literacy of the 21st century.[11]

Several associations, non-profit organisations, faculties and universities deal with this issue. However, these are often short-term educational courses or workshops aimed primarily at developing the practical skills of seniors as educators, while the very level of their knowledge, abilities and skills is not paid enough attention at the national level. We therefore consider it beneficial to examine the current state of this issue, thereby achieving results that can be applied in practice, which will serve as an incentive for further investigation of this issue and attribute importance to the population group in question.

The goal of our study is therefore to map the current state of media literacy of Slovak seniors in the area of their user skills, their ability to critically understand and their communication skills related to the use of media and digital technologies. Part of the partial goals of the research is the identification of technical and communication skills that seniors have in the use of technology; ascertaining the purpose of Internet use by respondents; examination of respondents' level of awareness of the negative aspects of modern technologies; finding out the most frequently used sources of information by seniors or identifying the media that the respondents trust the most.

The research sample consists of Slovak seniors, i.e., residents of the Slovak Republic aged 65 and over. The sample size is calculated using the sample calculation formula so that the research results represent relevant data with which we can further work and on which we can build further steps towards improving the current state.

$$n = \frac{\left(z^2 \times p \times (1-p)\right) + e^2}{e^2 + z^2 \times p \times \dfrac{(1-p)}{N}}$$

Figure 1: Sample size calculation formula
Source: Výpočet veľkosti vzorky. [online]. [2023-09-13]. Available at: <https://fmk.sk/vzorka/>.

1   POTTER, W. J.: *Theory of Media Literacy: A Cognitive Approach.* California : Sage Publications, 2004, p. 58-59.
2   ŠVECOVÁ, M.: Location-Based Games as a Method of Teaching Seniors in the Field of Digital Technologies. In *Media Literacy and Academic Research*, 2019, Vol. 2, No. 1, p. 62. [online]. [2023-09-30]. Available at: <https://www.mlar.sk/wp-content/uploads/2019/04/MLAR_2019_1_clanok_5-1.pdf>.
3   VELŠIC, M.: *Digitálna gramotnosť na Slovensku 2023. Zaostrené na seniorov.* Bratislava : IVO, 2023. [online]. [2023-09-30]. Available at: <https://www.ivo.sk/buxus/docs/publikacie/subory/Digitalna_gramotnost_2023.pdf>.
4   CEBE, J. et al.: *Stav mediální gramotnosti v ČR. Výzkum úrovně mediální gramotnosti obyvatelstva nad 15 let.* [online]. [2023-10-04]. Available at: <https://digifolio.rvp.cz/artefact/file/download.php?file=35603&view=3251>.
5   TOMCZYK, L.: Trends and Contexts on Education of Senior in the Range of Information Technology in Poland. In *Conference Proceedings of "eLearning and Software for Education".* Bucharest : ELSE, 2011, p. 1-5. [online]. [2023-10-04]. Available at: <https://www.academia.edu/3412379/TRENDS_AND_CONTEXTS_ON_EDUCATION_OF_SENIOR_IN_THE_RANGE_OF_INFORMATION_TECHNOLOGY_IN_POLAND>.
6   See: RICHARDSON, M., ZORN, T., WEAVER, K.: *Seniors' Perspectives on the Barriers, Benefits and Negatives Consequences of Learning and Using Computers.* Hamilton : University of Waikato, 2002.
7   VELŠIC, M.: *Digitálna gramotnosť na Slovensku 2023. Zaostrené na seniorov.* Bratislava : IVO, 2023. [online]. [2023-09-30]. Available at: <https://www.ivo.sk/buxus/docs/publikacie/subory/Digitalna_gramotnost_2023.pdf>.
8   *Koncepcia mediálnej výchovy v Slovenskej republike v kontexte celoživotného vzdelávania, 2009.* [online]. [2023-10-04]. Available at: <http://www.zodpovedne.sk/download/koncepcia_medialnej_vychovy_v_SR.pdf>.

9   *Rozšírené výsledky SODB 2021.* [online]. [2023-09-30]. Available at: <https://disem.scitanie.sk/SASVisualAnalytics/?reportUri=%2Freports%2Freports%2Fbe8f2737-3e7c-40c1-8d22-7af5a67d0cc6&sectionIndex=0&sso_guest=true&sas-welcome=false&language=sk>.
10   See: SOLÍK, M.: *Uznanie ako problém spravodlivosti a jeho mediálna reflexia.* Trnava : FMK UCM, 2021.
11   See: HOSSOVÁ, M.: Gramotnosti 21. storočia. In PETRANOVÁ, D., SOLÍK, M., RADOŠINSKÁ, J. (eds.): *Megatrendy a médiá 2016: Kritika v médiách, kritika médií I: Médiá a gramotnosť. Conference Proceedings.* Trnava : FMK UCM, 2016, p. 65-80.

With a population size (N) of 929,181 senior citizens (65 and over), a margin of error (e) of 8%, a variance (p) of 50%, and a confidence level (z) of 95%, a sample size (n) of 152 is required respondents. In our research, we work with a research sample size of 181 seniors. The subject of the investigation are researchers working at the Faculty of Mass Media Communication, University of Ss. Cyril and Methodius in Trnava (FMK UCM), who, in order to participate in the research, approached people of senior age from their surroundings in various parts of Slovakia and seniors who join the *Okresná organizácia Jednoty dóchodcov Trnava* (in English *Regional Organisation Unity of Pensioners Trnava*). The choice of the research object is therefore deliberate, chosen on the basis of availability. Thanks to this choice of the research object, the return of distributed questionnaires (distributed personally by researchers) is one hundred per cent. Data collection took place in the months of April – May 2023.

To achieve the set objectives of the research, we choose a quantitative research method – questionnaire inquiry (survey).[12] In order to obtain the necessary data, we compile a standardised questionnaire, which contains a section for ascertaining sociodemographic data (age, gender, educational attainment, place of residence and marital status) and 16 questions – closed, semi-closed, open and scaling questions. Questionnaire inquiries are chosen mainly because of the high degree of standardisation and reliability. The questionnaire is a suitable tool for determining attitudes, opinions, opinions and knowledge.[13] When compiling the questionnaire, we rely on the research carried out by Petranova,[14] who measured the level of media literacy of Slovak seniors in 2013. It was a pilot study in this area, in which the author focused on the user skills, critical thinking and communication competences of seniors. Questionnaire questions from the subject study serve as a basis for developing a questionnaire for our research. We have updated these questions and added new relevant facts. In the same way, when compiling the questionnaire, we rely on the *Testing and Refining Criteria to Assess Media Literacy Levels in Europe* methodology[15] (based on the results of the *Study on Assessment Criteria for Media Literacy Levels – Final Report*), which defines the criteria – skills and abilities shaping the level of media literacy.

The questions in the distributed questionnaire reflect the essence of media literacy as such – it is a set of knowledge, abilities and skills possessed by an individual in the field of media. The questionnaire consists of items asking about the respondents' user skills (use of technologies for access to media, use of basic editors and the Internet); items inquiring about the respondents' knowledge about the media (functions of the media, legislation, media owners) and their user behaviour (searching and assessing information, its credibility and relevance); and items focusing on the area of respondents' abilities in communication skills (media content creation, active citizenship, use of social media).[16] The questions are formulated clearly, simply and relatively briefly. The implemented questionnaire is not extensive, and its goal is to provide background data mapping the current situation, while in the future it can serve as starting material for a detailed updated examination of the level of media literacy of Slovak seniors.

Based on the main goal of the research and the mentioned partial goals, we formulate research questions (RQ), the answers to which are included in the final part of the study:
RQ1: Which technologies do seniors use most often and what user skills do seniors have in using technology?
RQ2: For what purpose do seniors use the Internet most often?
RQ3: What capabilities of critical understanding of media and their content do seniors have in the area of understanding media functions, media knowledge and user behaviour?

RQ4: What media-related communication skills do seniors have?
RQ5: Which media do seniors trust the most and where do seniors get information most often?

The answers to the research questions together result in the main research question. By answering it, we will fulfil the main goal of the study, which is to map the current state of media literacy of Slovak seniors in the area of their user skills, capacity for critical understanding and communication skills related to the use of media and digital technologies.

The main research question is as follows:
MRQ: What is the current state of media literacy of Slovak seniors in the area of their user skills, ability to critically understand and communication skills related to the use of media and digital technologies?

By answering the stated main research question, we evaluate the research assumption:
H: The current state of media literacy of Slovak seniors in the area of their user skills, ability to critically understand and communication skills related to the use of media corresponds to the Study on Assessment Criteria for Media Literacy Levels[17] to achieve a basic level of media literacy.

3 Results

Evaluation of Respondents' Sociodemographic Data

At the beginning of the questionnaire, we focused on obtaining sociodemographic data about the respondents, i.e., about Slovak seniors. The data collected are: age, gender, place of residence (rural/city), marital status and highest level of education. 181 respondents aged 65 and over took part in the research, with respondents aged 70 – 75 being the most represented age group. The majority of respondents are women. As for the marital status of seniors, it is mostly about married women and married men. The rural population slightly exceeds the urban population. Respondents most often mention secondary school education as the highest level of education (see Table 1).

Table 1: Analysis of the research sample according to socio-demographic data

Socio-Demographic Data	Number and Percentage of Respondents	
Age – Age Groups	65 – 69 years old	73 (40.3%)
	70 – 75 years old	75 (41.5%)
	76 – 79 years old	15 (8.3%)
	80 – 85 years old	14 (7.7%)
	86 years old and over	4 (2.2%)
Gender	Male	71 (39.3%)
	Female	110 (60.7%)

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12   In the data collection process, the researchers encountered several limitations of the questionnaire. Some respondents considered the questionnaire too long. In several cases, the respondents stated that the questionnaire questions were complicated and required the help of the researcher. Therefore, for the future investigation of the issue in question, we suggest to consider changing the research method from survey to personal interview survey. See: SEDLÁKOVÁ, R.: *Výzkum médií. Nejužívanější metody a techniky*. Prague : Grada Publishing, 2014, p. 159.
13   SEDLÁKOVÁ, R.: *Výzkum médií. Nejužívanější metody a techniky*. Prague : Grada Publishing, 2014, p. 157-158.
14   Compare to: PETRANOVÁ, D.: The Media Literacy Level of Slovak Seniors. In *Communication Today*, 2014, Vol. 5, No. 1, p. 70-85; PETRANOVÁ, D.: *Mediálna gramotnosť seniorov*. Trnava : FMK UCM, 2013.
15   *Testing and Refining Criteria to Assess Media Literacy Levels in Europe*. [online]. [2023-09-30]. Available at: <https://www.statpedu.sk/files/articles/dokumenty/ucebnice-metodiky-publikacie/medialna_vychova_studia.pdf>.
16   *Testing and Refining Criteria to Assess Media Literacy Levels in Europe*. [online]. [2023-09-30]. Available at: <https://www.statpedu.sk/files/articles/dokumenty/ucebnice-metodiky-publikacie/medialna_vychova_studia.pdf>.

17   *Study on Assessment Criteria for Media Literacy Levels. Final Report, 2009*. [online]. [2023-09-14]. Available at: <https://ec.europa.eu/assets/eac/culture/library/studies/literacy-criteria-report_en.pdf>.

Marital Status	Single	16 (8.8%)	
	Married	92 (50.8%)	
	Divorced	18 (9.9%)	
	Widowed	53 (29.3%)	
	With partner	2 (1.1%)	
Place of Residence	City	87 (48.9%)	
	Rural	94 (51.9%)	
Highest Level of Education	Primary school (first with second level of primary school) education	30 (16.6%)	
	Secondary school/High school education	122 (67.4%)	
	University education	29 (16%)	

Source: Own processing

Evaluation of Questionnaire Items

User Skills

Questionnaire questions Q1 – Q5 (including Q5.1) reflect a group of user skills that are part of measuring the level of media literacy according to *Testing and Refining Criteria to Assess Media Literacy Levels in Europe*.[18]

Q1: Have you used any of the above technologies in the last 3 months? You can mark more than one option: a. computer/laptop; b. tablets; c. smartphone; d. smart watch; e. smart television; f. elements of a smart home (e.g., controlled via a mobile phone); g. I don't use any; h. other (please specify?).

Within the aforementioned questionnaire item, we found that the respondents in the last three months most often worked with smartphones (104 respondents, i.e., 57.5%), smart TV (86 respondents, i.e., 47.5%) and computers, respectively laptops (85 respondents, i.e., 47%). From the obtained results, we can conclude that smartphones are a relatively common part of the equipment of seniors. Of course, it is a matter of deeper research to what extent seniors use smartphones, but also smart TVs and their individual functions. It is likely that a certain percentage of seniors own a smartphone, but do not use many of its functions or even do not know about the possibilities that this technology provides. Elements of a smart home are used significantly less often (e.g., controlling a washing machine using a smartphone, etc. – 7 respondents, i.e., 3.9%), smart watch (18 respondents, i.e., 9.9%), but also tablets (40 respondents, i.e., 22.1%). Almost 10% of seniors (17 respondents) state that they do not use any modern technology. In the option *Other (please specify?)*, there are two identical answers – mobile phones with buttons. The percentage representation of individual answers is presented in Figure 2.
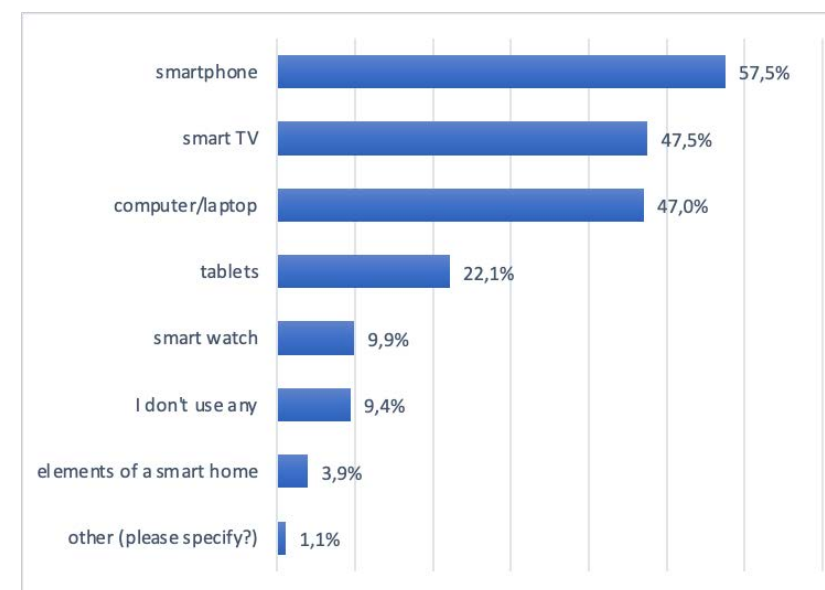

Figure 2: Technology use by seniors
Source: Own processing

Note: Other questionnaire items are filled in only by respondents who marked at least one of the options in Q1. If the respondent marks option g in Q1 ("I don't use any"), they continue filling out the questionnaire with question Q6.

Q2: Can you work with a text editor (e.g., MS Word, OpenOffice, etc.)? (a. yes; b. no)
Q3: Can you work with a spreadsheet editor (e.g., MS Excel)? (a. yes; b. no)
Q4: Can you create a presentation in a dedicated program (e.g., MS PowerPoint)? (a. yes; b. no)

Q2 – Q4 are similarly structured questions asking whether the senior is capable of working with a text and spreadsheet editor and creating presentations. We therefore evaluate them in the set Figure 3. The three items listed are filled in by 164 respondents.

If we talk about working with a text editor (e.g., *MS Word, OpenOffice*, etc.), only 72 seniors (43.9%) state that they know how to work with a text editor. 92 seniors (56.1%) do not know how to work with any text editor. An even bigger difference is shown in Q3 regarding working with a spreadsheet editor (e.g., *MS Excel*). Only 36 seniors state that they can work with such an editor (22% of respondents), while up to 128 seniors (78%) do not know how to work with spreadsheet editors. The most striking difference between the answers is shown in Q4 asking about seniors' ability to create presentations (e.g., in *MS PowerPoint*). It could be said that this tool is used by the respondents the least – up to 136 seniors, i.e., 83% do not know how to create a presentation in the program intended for it. Only 28 respondents (i.e., 17%) have this skill.

The results of these three items might seem rather surprising, especially given the relatively high percentage of answers from Q1 related to the use of a computer/laptop (up to 47% of respondents). However, these results suggest that seniors may use individual media access tools, but use their functions to a limited extent only. In this regard, however, we must point out that the questioned seniors are part of the generation of digital immigrants, who during their working lives were not so 'forced' to use modern technologies, which can be reflected precisely in their technical skills.

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18   *Testing and Refining Criteria to Assess Media Literacy Levels in Europe*. [online]. [2023-09-30]. Available at: <https://www.statpedu.sk/files/articles/dokumenty/ucebnice-metodiky-publikacie/medialna_vychova_studia.pdf>.
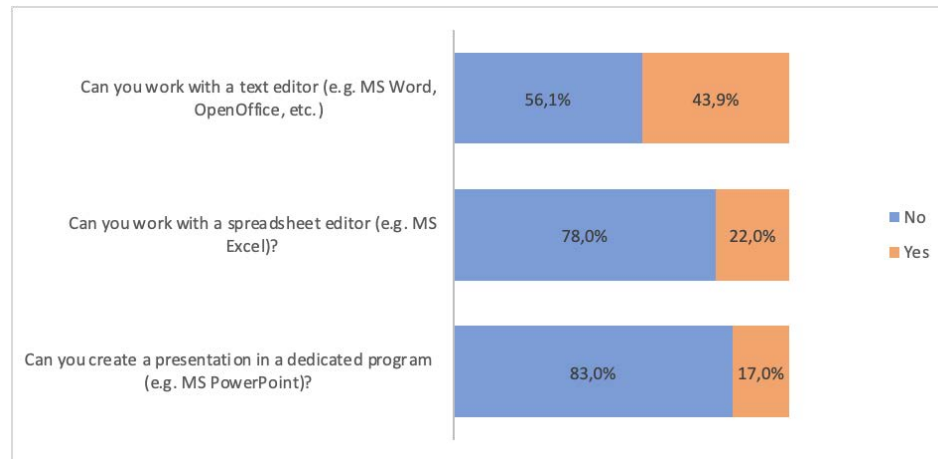
Figure 3: Seniors' ability to work with selected programs
Source: Own processing

Q5: Do you use or know how to work with the Internet (it doesn't matter if using a computer, mobile phone or other device). (a. yes; b. no)
Q5.1: Have you used the Internet for the stated purposes in the last three months? (a. searching for information about services or goods; b. watching TV or movies (Voyo, JojPlus, Netflix, HBO Max); c. listening to music, radio or podcasts (YouTube, Spotify or websites of radio stations); d. reading newspapers or magazines; e. internet banking; f. purchasing goods via the internet; g. other.; note: for each option the respondent chooses yes/no).

Item Q5 and the subsequent item Q5.1 refer to the senior's ability to work with the Internet and the purpose of using this medium. The results show that up to 128 out of 164 respondents, i.e., 78% of seniors use the Internet, or they know how to work with it. On the contrary, 36 respondents, i.e., 22% of seniors state that they do not use the Internet, or they do not know how to work with it. In the follow-up question Q5.1, which is filled in only by seniors who use the Internet and know how to work with it (i.e., 128 respondents), we find out for what purpose seniors used the Internet in the last three months. From the answers of the respondents, it can be deduced that seniors most often search for information about goods and services (84.4%) and read online versions of newspapers and magazines (75%). The other options are relatively balanced, while we perceive very positively the fact that seniors can use e.g., Internet banking or shop online. In the other option, three seniors state that they use the Internet to make video calls (see Figure 4).

Figure 4: The purpose of Internet use by seniors
Source: Own processing

Competencies of Critical Understanding of the Media

Survey questions Q6 – Q14 reflect a group of critical comprehension skills that are part of measuring the level of media literacy according to *Testing and Refining Criteria to Assess Media Literacy Levels in Europe.*[19]

Q6: Are there rules (regulations, laws) that regulate the media in the area of advertising, displayed content or copyright of creators? (a. yes, b. no, c. I don't know)

Using questionnaire item Q6, we find out whether seniors are aware of the existence of rules that we consider to be regulatory in the field of media. They can be various regulations and laws that are binding on media owners and that they must follow when establishing and operating them (e.g., Advertising Act, Media Services Act, Copyright Act, etc.). It follows from the answers of the respondents that the majority of seniors do not know (48%, i.e., 87 respondents) whether there are such rules, regulations or laws that regulate the media in the subject area. Despite the fact that this is a high number, compared to seniors who know that such regulatory rules exist (47%, i.e., 85 respondents), it is only a one percent difference. On the contrary, only 5% of seniors think that there are no regulatory rules for the media field (see Table 2). However, if we look at this situation from the point of view of the balance of answers "yes" and "I do not know", we conclude that the awareness of seniors about this topic is low, despite the fact that almost 50% of them are aware of the existence of regulatory rules. In this sphere, however, we see a good possibility of correcting the current situation and updating the knowledge of seniors in this area.

Table 2: Awareness of seniors about existing regulatory regulations in the field of media

Answer	Number and Percentage of Respondents
Yes	85 (47%)
No	9 (5%)
I do not know	87 (48%)

Source: Own processing

Q7: Do you think that the media owner has an influence on what and how the media reports? (a. yes, b. no, c. I don't know)

The goal of Q7 is to find out the opinion of seniors on the possible influence of media owners on published media content or information. The results of the research show that the vast majority of respondents (71.8%, i.e., 130 respondents) think that the media owner can influence what and how the media informs. However, a relatively large percentage of seniors (23.8%, 43 respondents) cannot decide whether media ownership can influence the media content produced (See Table 3). Similar to question Q6, here too we see a relatively large number of seniors who lack information about this topic and about phenomena such as e.g., gatekeeping or agenda setting. In this topic, we also see room for 'correction', i.e., expanding the existing knowledge of Slovak seniors.

19   *Testing and Refining Criteria to Assess Media Literacy Levels in Europe.* [online]. [2023-09-30]. Available at: <https://www.statpedu.sk/files/articles/dokumenty/ucebnice-metodiky-publikacie/medialna_vychova_studia.pdf>.

Table 3: The opinion of seniors on the possible influence of the media owner on the produced media contents and information

Answer	Number and Percentage of Respondents
Yes	130 (71.8%)
No	8 (4.4%)
I do not know	43 (23.8.%)

Source: Own processing

Q8: Have you ever encountered the fact that different media reported on the same event differently, gave conflicting information, etc.? (a. yes, b. no)

In the mentioned questionnaire item, we find out the experience of the questioned seniors with different information about the same event by different media. In the current media environment, this is a relatively common phenomenon, whereby different media can present different information (as well as contradictory information) intentionally (in an attempt to manipulate the target audience and its opinion) or unintentionally (by providing incomplete information or timely provision of information without deeper context, which appears during the development of the situation they inform about). In this regard, we are interested in the fact whether seniors have encountered such a phenomenon, while the question is further followed by question Q9 investigating ways of checking or finding additional information by seniors. The obtained results show (See Table 4) that seniors have a relatively large experience with different information about events in different media. Up to 78.5% of seniors (142 respondents) have encountered this phenomenon, and, on the contrary, only 21.5% of seniors (39 respondents) have not had such an experience.

Table 4: Experience of seniors with different information about the event in different media

Answer	Number and Percentage of Respondents
Yes	142 (78.5%)
No	39 (21.5%)

Source: Own processing

Q9: If you feel that information you found on the Internet is not true, what do you do? (a. I will ask the opinion of my partner/partner, husband/wife, children, grandchildren or friends or acquaintances; b. I will look for that information on another web page and compare it; c. I will form an opinion based on my own convictions, I will lean towards the opinion, which is closer to me; note: the respondent chooses yes/no for each option).

The goal of Q9 is to identify the mechanisms that seniors use in the process of verifying information, or in case of doubts about the veracity of the information obtained. The options available to respondents for choosing an answer represent a kind of 'first steps' that they can take to verify the truth of the information – ask for another person's opinion, look for information from another source or make a decision based on their own convictions. The obtained data show, that only if seniors come across information whose veracity they doubt, up to 75.7% of them (137 respondents) will form an opinion based on their own beliefs, or leans towards the opinion that is closer to them. Up to 65.6% of seniors (119 respondents) perceive the opinion of a close person, family member or acquaintance as authoritative in the process of deciding on the truth of some information. Only 36.5% of seniors (66 respondents) carry out verification of information from another source (they look for information on another site and compare it) (see Figure 5). At this point, we consider it important to point out the fact that independent verification of information should be the first step, a sort of first choice in the process of ascertaining the truth of information for a media literate individual. In this direction, it is necessary to work

on the development of this competence among seniors, by improving their technical skills that facilitate access to information. Subsequently, if individuals from the senior's surroundings also possess such competences, they will be able to provide them with a relevant answer in the event that the given senior chooses to ask the opinion of a close person, acquaintance or family member as a "means" for verifying information. The above emphasises the need to systematically increase media literacy in all its components (knowledge, abilities and skills) among the target group of seniors and across other generations.
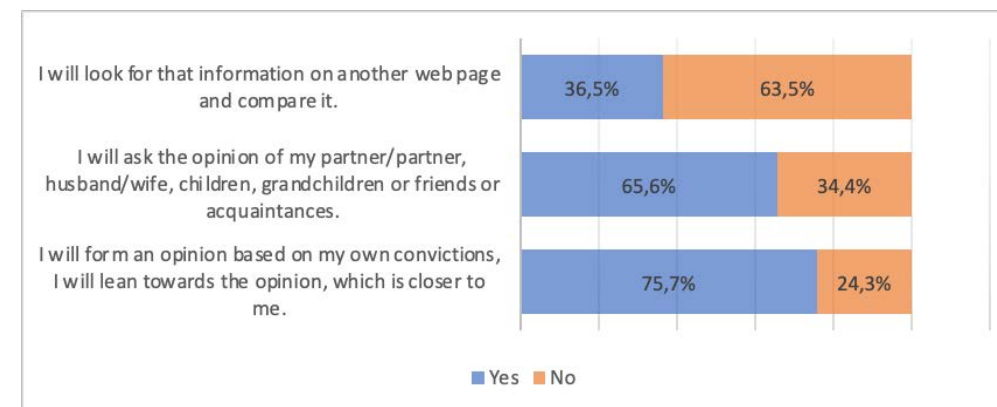

Figure 5: Ways of verifying the veracity of information by seniors
Source: Own processing

Q10: Have you ever encountered in the past or do you know the listed pitfalls and risks associated with using the Internet? (a. computer viruses; b. phishing; c. junk mail (spam, chain messages, intimate photos, etc.); d. fraudulent messages (e.g., fake winnings and inheritances); e. online gambling; f. cyberbullying; g. cyberstalking; h. intolerance and discrimination on the Internet; i. promotion of extremism and hate speech on the Internet; j. spreading of false news, hoaxes, or propaganda on the Internet; k. addiction to the Internet; note: for each option, the respondent chooses yes/no/ I don't know).

As part of the examination of the capabilities of critical understanding of media and media content in Q10, we monitor the experiences of seniors, respectively. their awareness of the existence of negative phenomena related to the use of the Internet (e.g., cyberbullying, extremist expressions, intolerance, the spread of fake news, etc.). The question asks about several pitfalls and risks of the Internet and the content available on it, while at each point the respondent answers "yes", "no" or "I don't know" (whether I have encountered/know the mentioned pitfalls and risks). The obtained results (see Figure 6) reflect that most seniors encounter the following negative phenomena on the Internet: the spread of fake news, hoaxes and propaganda (65.7%), computer viruses (60.8%), fraudulent messages (59.6%), promotion of extremism and hate speech (49.2%), spam (47.5%) and Internet addiction (42%). Seniors encounter other pitfalls of the Internet less often, or they cannot determine whether they have already encountered them (e.g., phishing, online gambling, cyberbullying, cyber stalking). In cases where seniors cannot determine whether they have encountered this phenomenon before, we can discuss whether it is a lack of knowledge of the topic/phenomenon that should be eliminated in order to protect the recipient. If we talk about phishing (up to 47.5% of seniors cannot determine whether they have already encountered the phenomenon), considering that more than half of seniors work with Internet banking (see Figure 4), it is appropriate to talk about this issue and build seniors' knowledge in this area.
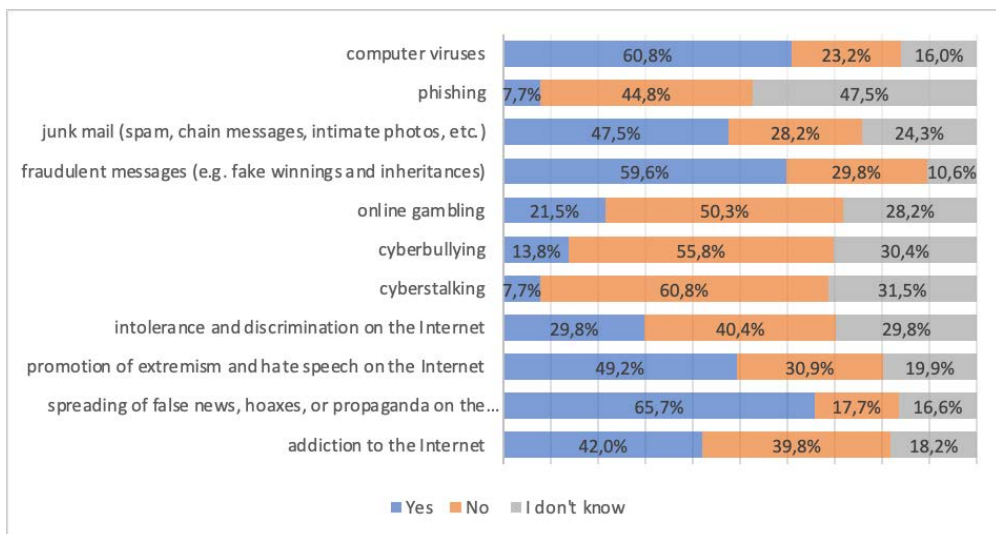
Figure 6: Awareness of seniors about pitfalls and risks related to the use of the Internet
Source: Own processing

Q11: Have you ever come across the term conspiracy media? (a. yes, b. no).

Q11 focuses on finding the awareness of seniors about the existence of the concept of conspiracy media, or about the very existence of conspiracy media. Q12 directly follows the question and maps the picture of the situation in this area, by which we find out which of the listed media seniors consider trustworthy. From the obtained data, we conclude that the awareness of seniors about the existence of conspiracy media is relatively high – 61.3% (i.e., 111 respondents) of seniors have already encountered the term conspiracy media and, on the contrary, 38.7% (i.e., 70 respondents) of seniors have not yet encountered this term (See Table 5). Despite the fact that we see a preponderance of positive answers, it is necessary to realise that we live in the so-called postfactual society, in which disinformation, hoaxes and propaganda are powerful tools for achieving (political) power, and therefore it is desirable that the awareness of (not only) seniors about the negative phenomenon of conspiracy media increases rapidly, e.g., also in the interests of health protection or preservation of the democratic political establishment of the state.

Table 5: Seniors' awareness of the existence of the concept of conspiracy media

Answer	Number and Percentage of Respondents
Yes	111 (61.3%)
No	70 (38.7%)

Source: Own processing

Q12: Do you consider the mentioned media trustworthy? (a. TV Joj; b. Daily SME/website sme.sk; c. Website Badatel.net; d. Daily Denník N/website dennikn.sk; e. Website protiprud.sk/protiproud. cz; f. TV Markíza; g. Daily Nový Čas/website cas.sk; h. magazine Zem&Vek; i. Daily Plus JEDEN DEŇ/website pluska.sk; j. RTVS; k. Daily Pravda; l. website topky.sk; m. website Aeronet.news/Aeronet.cz; n. website aktuality.sk; o. website obcianskytribunal.sk; p. daily Šport; q. internet radio Slobodný vysielač; note: for each option, the respondent chooses yes/ no/ I don't know this medium)

Q12 aims to find out which media the seniors consider trustworthy, which not, or which they do not know from the media (and therefore cannot decide whether they can perceive them as trustworthy). The selection of media in the options represents Slovak or nationwide and supra-regional media operating in Slovakia, namely television, print media and online media. We choose media that are in the selection options deliberately and based on the list of conspiracy media *kon pirátori.sk*.[20] The individual media in the questionnaire item are sorted randomly and shuffled (serious, tabloid, conspiracy) so that the respondents do not have the feeling of being led to a specific answer.

The answers obtained show that seniors trust the television media the most, while the most trusted media among all is the public *RTVS*, which is trusted by up to 91.2% of seniors (165 respondents), followed by *TV Markíza* (65.2%, i.e., 118 respondents) and *TV Joj* (64.1%, i.e., 116 respondents). The most trusted print media is daily *Pravda* (64.6%, i.e., 117 respondents), which is also the second most trusted media among all those in the given questionnaire item. The *Šport* newspaper also achieves high credibility (59.7%, i.e., 108 respondents). The newspaper *SME/website sme.sk* also achieves a relatively high level of credibility (51.9%, i.e., 94 respondents). The following is the website *aktuality.sk* (41.4%, i.e., 75 respondents), daily *Plus JEDEN DEŇ/website pluska.sk* (40.9%, i.e., 74 respondents) and *Denník N/website dennikn.sk* (38.7%, i.e., 70 respondents). We can observe that serious media predominate within the print media and their online versions, although *Denník N/website dennikn.sk* is placed only behind the tabloid *Plus JEDEN DEŇ* and its online version. If we talk about tabloid media, the second most reliable is the daily *Nový čas/website cas.sk* (37.6%, i.e., 68 respondents) and in third place is the website *topky.sk* (16.6%, 30 respondents). In this case, however, we also observe that up to 34.3% of seniors do not know the *topky.sk* website. It is similar with the website *aktuality.sk* (35.9%) and *Denník N/website dennikn.sk* (32%). Knowledge of conspiracy media is also relatively low. While the results seem at first glance to indicate that seniors consider conspiracy media to be untrustworthy, in all cases the highest proportion of responses is "I don't know this media". So, it is more about ignorance of these types of media, or media outside the mainstream rather than their low credibility. The least known medium is the website *Aeronet.news/Aeronet.cz*, which is unknown to 81.2% of seniors. This is followed by the website *obcianskytribunal.sk* (70.7%), the website *protiprud.sk/protiprud.cz* (72.4%), the website *Badatel.net* (70.2%), the Internet radio station *Slobodný vysielač* (64.1%) and the magazine *Zem&Vek* (53%). However, the Internet radio station *Slobodný vysielač* and the magazine *Zem&Vek* are also the most well-known conspiracy media. However, the vast majority of respondents do not trust them (See Figure 7).
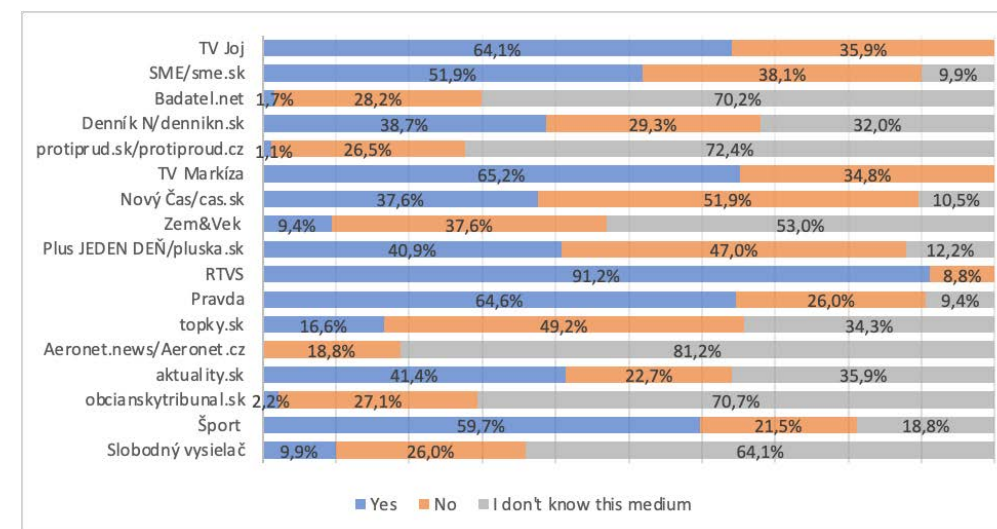

Figure 7: Credibility of the media from the perspective of seniors
Source: Own processing

20   *Konšpirátori.sk.* [online]. [2023-09-30]. Available at: <https://konspiratori.sk/>.

Q13: Where do you usually get new information from – e.g., about social events at home and around the world, about culture, sports, etc. (a. from family (partner, husband/wife, children, grandchildren, etc.); b. from friends or acquaintances; c. from television; d. from radio; e. from newspapers or magazines; f. from the Internet; note: the respondent records the answer on a scale: not at all – occasionally – often.)

In connection with the examination of the ability to think critically about the media and media contents, we also analyse where seniors normally obtain information about social events. Therefore, in questionnaire item Q13, we find out whether the respondents' usual sources include family and loved ones, friends and acquaintances, television broadcasts, radio broadcasts or the Internet. The respondent records the answer using a scale (not at all – occasionally – often), while we evaluate the obtained data using the average, which allows us to compare individual categories with each other.[21] We multiply the obtained results (numbers of individual answers in the scale) by the assigned coefficient (not at all – coefficient 1; occasionally – coefficient 2; often – coefficient 3). We then add up the resulting values and calculate the average. The results of individual categories (answer options) are presented in Tables 6 – 11.

Table 6: Source of information – family (partner, husband/wife, children, grandchildren, etc.)

	Quantity (n)	Result
not at all – coefficient 1	26	26
occasionally – coefficient 2	53	106
often – coefficient 3	102	306
Sum	**181**	**438**

Source: Own processing

Average: 438:181=2.4. The family is an occasional source of information for the respondents, as it reaches an average of 2.4 and stands between the value often and occasionally, but closer to occasionally.

Table 7: Source of information – friends and acquaintances

	Quantity (n)	Result
not at all – coefficient 1	30	30
occasionally – coefficient 2	63	126
often – coefficient 3	88	264
Sum	**181**	**420**

Source: Own processing

Average: 420:181=2.3. Friends and acquaintances are an occasional source of information for seniors, as this category reaches an average of 2.3 and stands between the value often and occasionally, but closer to occasionally.

Table 8: Source of information – television

	Quantity (n)	Result
not at all – coefficient 1	22	22
occasionally – coefficient 2	23	46
often – coefficient 3	136	408
Sum	**181**	**476**

Source: Own processing

Average: 476:181=2.6. Television is a frequent source of information for seniors, as this category reaches an average of 2.6 and stands closest to the value often.

Table 9: Source of information – radio

	Quantity (n)	Result
not at all – coefficient 1	48	48
occasionally – coefficient 2	34	68
often – coefficient 3	99	297
Sum	**181**	**413**

Source: Own processing

Average: 413:181=2.3. Radio broadcasting is an occasional source of information for seniors. This category achieves an average of 2.3 and stands closer to the value of occasional.

Table 10: Source of information – newspapers and magazines

	Quantity (n)	Result
not at all – coefficient 1	48	48
occasionally – coefficient 2	42	84
often – coefficient 3	91	273
Sum	**181**	**405**

Source: Own processing

Average: 405:181=2.2. Print media (newspapers and magazines) are an occasional source of information for seniors. The category averages 2.2, which is closest to the value occasional.

Table 11: Source of information – the Internet

	Quantity (n)	Result
not at all – coefficient 1	72	72
occasionally – coefficient 2	28	56
often – coefficient 3	81	243
Sum	**181**	**371**

Source: Own processing

Average: 371:181=2. The Internet is also an occasional source of information for seniors. It averages 2.

From the obtained data and calculations, we conclude that the most common source of obtaining information from seniors is television. Followed by family, friends and acquaintances/radio and print media (newspapers and magazines). In last place is the Internet, which, according to the results of the research, is also an occasional source of information, but has the lowest average (see Table 13).

21   GAVORA, P. et al.: *Elektronická učebnica pedagogického výskumu.* Bratislava : Univerzita Komenského, 2010. [online]. [2023-09-30]. Available at: <http://www.e-metodologia.fedu.uniba.sk/index.php/kapitoly/posudzovacie-skaly/vyhodnotenie.php?id=i13p6>.

Table 12: Most frequent sources of information

Source of Information	Average	Ranking
Television	2.6	1.
Family	2.4	2.
Friends	2.3	3.
Radio	2.3	3.
Newspapers and magazines	2.2	4.
Internet	2	5.

Source: Own processing

Q14: Do you think that what my media shows/says faithfully reflects reality? (a. yes, b. no, c. I cannot tell).

Using questionnaire question Q14, we map the view or opinion of seniors on whether the information published by the media reflects reality, or the reality we live in. A part of developed media competences and a higher level of media literacy is also the distinction between real and so-called media reality, i.e., reality constructed by the media. In a certain way, the above is also related to media ownership (and the phenomenon of gatekeeping). It is necessary to realise that the way the media informs about social events reflects not only what type of media it is (serious/tabloid/conspiracy), but also who owns the given media and what their (political and social) interests are. The obtained data show that 11.6% (21 respondents) think that the media faithfully reflects reality. 44.2% of seniors (80 respondents) perceive a difference between reality and the media presented, or processed reality. However, the same percentage of seniors cannot assess whether the facts presented by the media faithfully reflect reality (see Table 14). Here we note that it is a really large percentage of respondents who do not have knowledge about media reality, gatekeeping, agenda setting or media production in general (to an adequate extent, i.e., basic knowledge).

Table 13: Seniors' opinion on the match between real and media reality

Answer	Number and Percentage of Respondents
Yes	21 (11.6%)
No	80 (44.2%)
I do not know	80 (44.2%)

Source: Own processing, 2023

Communication Skills

Q15 contains multiple options, in the form of sub-questions. This item and its components reflect a group of communication skills that are part of measuring the level of media literacy according to *Testing and Refining Criteria to Assess Media Literacy Levels in Europe.*[22]

Q15: In the last 3 months, have you used the Internet for: a. sending and receiving e-mails; b. communication via chat or communication applications (e.g., Messenger, WhatsApp, etc.); c. communication via social networks

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[22] *Testing and Refining Criteria to Assess Media Literacy Levels in Europe.* [online]. [2023-09-30]. Available at: <https://www.statpedu.sk/files/articles/dokumenty/ucebnice-metodiky-publikacie/medialna_vychova_studia.pdf>.

(e.g., commenting on photos or statuses on Facebook, Instagram, etc.); d. sharing photos on the Internet (e.g., on social networks); e. sharing videos on the Internet (e.g., on social networks); f. publishing one's own texts on the Internet (e.g., on a blog); g. for cooperation within the community, working group (e.g., organising an event, creating a program for an event, etc.); h. access to public services (e.g., communication with authorities, insurance company, doctor, etc.); i. commenting on social events (e.g., writing a post or comment in a discussion); j. showing one's own civic involvement (e.g., signing petitions, appeals, etc.); note: for each option the respondent chooses yes/no).

The goal of question Q15 is to find out for what purpose seniors use the Internet most often (communication, creativity, civic engagement, etc.). The question asks about the use of the Internet in the last three months in specific cases, with the aim of obtaining current answers from the respondents (data collection took place in the months of April – May 2023). The question consists of ten options, with the respondent choosing the answer "yes"/"no" for each. The chosen options reflect defined communication skills defined by indicators that represent social relations, civic participation and the creation of media content. The obtained data show that the respondents most often use the Internet for communication (social relations), in the sense of communication via chat or communication applications (53.6%, i.e., 97 respondents), communication via e-mail (46.4%, i.e., 84 respondents) and also communication through social networks (28.2%, i.e., 51 respondents). The second most represented group of activities that seniors perform on the Internet are activities related to civic participation and access to public services. Access to public services (e.g., communication with authorities, doctors or insurance company) is used by most seniors in this group of activities (34.3%, i.e., 62 respondents). Activities related to civic involvement are significantly less represented – expressing oneself about social events or, for example, signing a petition/challenge (both activities are represented by 14.4% of seniors (16 respondents). Only 8.8% of seniors (16 respondents) use the Internet to collaborate within a community or work group. In terms of creating content on the Internet, sharing photos is most represented (19.9%, i.e., 36 respondents). The given data indicate that the vast majority of our respondents are not active in the online environment in the mentioned activities. With the exception of communication via chat or communication applications, i.e., "I have not used the Internet in the last three months for the mentioned activity". The least number of senior citizens use the Internet for publishing their own texts on the Internet (96.1% of answers "no"), for cooperation within the community or work group (91.2% of answers "no"), for expressing themselves about the social situation and expressing their own civic engagement (85.6% answers "no") or sharing videos on the Internet (84% answers "no") (see Figure 8). Based on these findings, we can say that seniors generally use the Internet very little for the mentioned options and do not use its potential and functions to a sufficient extent. This may be due to the lack of communication skills of seniors, lack of technical skills, but also the lack of interest or unimportance of these Internet functions for individuals.
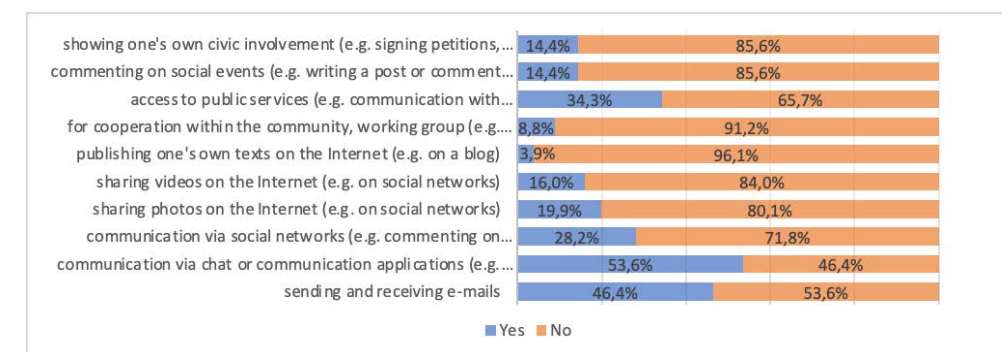

Figure 8: Activities performed by seniors on the Internet
Source: Own processing

4 Discussion and Summary

181 respondents took part in the research, and were mostly women (60.7%). The majority of respondents achieved secondary education (67.4%), live in the countryside or in the city (51.9% for the rural population and 48.9% for the urban population) and are married (50.8%). The most represented age category is seniors aged 70 – 75. A detailed breakdown of the research sample is presented in Table 1.

Data collection was carried out using a survey method. The questionnaire contained 16 questions aimed at determining the status of user skills, critical understanding and communication skills. Based on the evaluation of individual questionnaire items and by creating a detailed analysis of the obtained data and their interpretation, we approached answering the research questions that serve to fulfil the goal of the study. The answers to the research questions also summarised the most important findings resulting from the research:

RQ1: Which technologies do seniors use most often and what user skills do seniors have in using technology?

Based on the evaluation and interpretation of Q1 – Q4, we note that seniors most often work with smartphones (57.5%), smart TVs (47.5%) and computers/notebooks (47%). Tablets (22.1%), smart watches (9.9%) or smart home elements (3.9%) are used less often. Almost 10% of respondents do not use any modern technology.

Regarding the skills that seniors have, we note that the technical skills of seniors are insufficiently developed. Seniors, who normally use modern technologies, master work with a text editor to an insufficient degree, i.e., only 43.9% of seniors can work with such an editor (e.g., *MS Word, OpenOffice*, etc.). If we talk about working with a spreadsheet editor and with an editor for creating presentations, the skills of seniors are even weaker. Only 22% of seniors can work with a spreadsheet editor (e.g., *MS Excel*). Only 17% of seniors can create a presentation in a specially designed program (e.g., *MS PowerPoint*).

Based on the interpretation of the obtained data, we observe that smartphones are a relatively common part of the life of seniors. It's the same with computers/laptops. Despite this, the basic technical skills of seniors are at a low percentage level. The above indicates that seniors probably use modern technologies to access media, but use the functions and potential of these technologies to a limited extent. The question of a deeper investigation of the issue at a qualitative level could thus precisely become the rate of use of specific functions of modern technologies used for access to the media. At the same time, in this situation, we perceive a potential for the education of seniors and the improvement of their technical skills in relation to media and technology. It is important to realise that people aged 65 and over are part of the generation of digital immigrants.[23] This population group was not really 'forced' to use modern technologies during their active working life, which is largely reflected in the level of their user skills.

RQ2: For what purpose do seniors use the Internet most often?

We answer the research question based on the evaluation of questionnaire items Q5 and Q5.1. According to the obtained data, 78% of seniors state that they use the Internet and know how to work with it. The most frequent activities performed online are: searching for information about goods and services (84.3%) and reading online versions of newspapers and magazines (75%). The answers show that seniors know how to use e.g., also Internet banking (52.3%) or shopping via the internet (47.7%). In addition, seniors also use the Internet to listen to music, radio or podcasts (e.g., via *YouTube* or *Spotify* – 43.7%) and watch TV or movies (e.g., via *Netflix, HBO Max, Voyo*, etc. – 37.5%), even though to a lesser extent. Thus, the user skills of seniors are varied and although they include all components – computer and internet skills, balanced and active media use and extended internet use; their utilisation rate is average.

RQ3: What capabilities of critical understanding of media and their content do seniors have in the area of understanding media functions, media knowledge and user behaviour?

We answer RQ3 based on the evaluation and interpretation of data from questionnaire items Q6 – Q11 and Q14. We summarise the answer in the following points:
- Seniors have insufficient awareness of the existence of regulatory mechanisms in the field of media – up to 48% of respondents state that they do not know whether there are rules, regulations or laws regulating the operation of the media in the market.
- Opinions of people aged 65 and over on the media owner's influence on media content and information produced by the media vary. Although 71.8% of respondents are convinced that the media owner can influence what and how the media informs, up to 23.8% of respondents cannot decide whether media ownership can have an impact on this area.
- Seniors have a lot of experience with different information about events by different media – up to 78.5% of respondents encountered this phenomenon. Subsequently, if a senior doubts the veracity of the information obtained, they most often form an opinion based on their own conviction and thus lean towards the opinion that is closer to them without further verification (75.7% of respondents). In up to 65.6% of cases, a close person or family member influences the respondent's final opinion. In this case, only 36.5% of seniors verify information from another source.[24]
- As part of the awareness of the existence of negative phenomena related to the use of the Internet, we assess that seniors most often encounter the spread of fake news, hoaxes and propaganda (65.7%); with the spread of computer viruses (60.8%), with fraudulent messages (59.6%) and with the promotion of extremism and hate speech (49.2%).
- 61.3% of seniors are aware of the existence of conspiracy media, or have already encountered this term. On the other hand, however, we identify a relatively low knowledge of specific conspiracy media (in the answers of seniors, the answer "I don't know this medium" prevails for almost all conspiracy media).
- Awareness of seniors about the existence of the so-called media reality is low. Although 44.2% of seniors perceive a difference between reality and the media presented, or processed reality, the same percentage of seniors cannot assess whether the reality presented by the media faithfully reflects reality.

Based on the above summary, we summarise that seniors have knowledge of media ownership and the media owner's ability to influence the form of information produced by the given media and also perceive the difference in the way information is presented by different media. The level of awareness of seniors about the existence of conspiracy media also has a high percentage representation. On the contrary, knowledge about regulatory mechanisms of the media and mechanisms of presenting reality by the media is largely absent. As part of user behaviour, we identify shortcomings in the way of verifying information – seniors prefer to form an opinion based on their own convictions without additional information seeking or leaning towards the opinion of a close person or family member. The rate of verification of information from another relevant source is low.

RQ4: What media-related communication skills do seniors have?

Based on the evaluation of questionnaire item Q15, we find that seniors most often use the Internet to build social relationships – they communicate via chat or communication applications (53.6%), via e-mail and also use social networks (to a reduced extent). As part of civic participation, the use of the Internet to access public services dominates (34.3%), significantly less seniors are involved in community or civic participation. In the content creation section, photo sharing on the Internet dominates (19.9%). Individual media production (creating and publishing texts or videos) is overall the least represented group of activities that seniors perform on the Internet. We can summarise that the use of the Internet by seniors is relatively weak and that seniors do not use this medium to its full potential considering its functions and potential.

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23   See: PRENSKY, M.: Digital Natives, Digital Immigrants. Part 1. In *On the Horizon*, 2001, Vol. 9, No. 5, p. 1-6. [online]. [2023-09-28]. <https://doi.org/10.1108/10748120110424816>.

24   Compare to: VELŠIC, M.: *Digitálna gramotnosť na Slovensku 2023. Zaostrené na seniorov*. Bratislava : IVO, 2023. [online]. [2023-09-30]. Available at: <https://www.ivo.sk/buxus/docs/publikacie/subory/Digitalna_gramotnost_2023.pdf>.

RQ5: Which media do seniors trust the most and where do seniors get information most often?

We answer the research question based on the evaluation of Q12 and Q13. Within the trustworthiness of individual media, it appears that seniors trust television media the most, while *RTVS* (91.2%) is the most trusted media overall. Among print media and online news portals, Pravda is the most trusted (64.6%), followed by other serious media – the daily *SME/website sme.sk*, the website *aktuality.sk*. However, the tabloid *Plus JEDEN DEŇ*, or website *pluska.sk* (40.9%) are considered trustworthy too. In the case of online portals, we observe that many seniors are not familiar with these media. It is the same with specific conspiracy media. In this case, we perceive that it is rather ignorance of these types of media, or media outside the mainstream rather than their low credibility.

The most common source of information for seniors is television, which also corresponds to the above – seniors trust television media the most. The family follows as the second most common source of information for seniors. In third place is the friends option, but also radio broadcasts. Surprisingly, in penultimate place is the option representing obtaining information from the press – newspapers and magazines. The least used source of information by seniors is the Internet.

Based on the answers to the set research questions, we can answer the main research question, which is also a comprehensive summary of the issue in question:

MRQ: What is the current state of media literacy of Slovak seniors in the area of their user skills, capacity for critical understanding and communication skills related to the use of media and digital technologies?

We approach answering the main research question on the basis of the obtained data and their interpretation. We rely on the categorisation established by the *Study on Assessment Criteria for Media Literacy Levels*, which lists three levels of media literacy: *basic, medium, advanced*. We can talk about *basic level of competences* if seniors have a basic set of abilities and skills necessary for using the media. In this case, the individual knows the functions of the media and knows how to use them for certain purposes. Within the competences of critical understanding of media and media content, the senior's competences are limited. Communication skills are also limited. If it is *a medium level of competences*, we are already talking about performing more complex actions through media. Critical access capabilities are also expanded. Within them, a senior with an intermediate level of media literacy knows the mechanisms of verifying information and actively applies these strategies. In the case of communication skills, active media production is required. The highest level of media literacy is represented by *the advanced level of competencies*, while in this case we can already talk about media professionals. An individual with a high level of media literacy has deep technical knowledge, a wide range of knowledge about the media (e.g., from the field of legal regulation and actively participates and initiates events in the public sphere as part of their own civic involvement.[25]

If we compare the established criteria with the achieved results of our research, we conclude that the current state of media literacy of Slovak seniors in the area of their user skills, ability to critically understand and communication skills related to media and technology, reaches *the basic level of competencies*. We see this situation in all three analysed areas separately, but also as part of a comprehensive assessment of the current situation. Slovak seniors use technology to access the media at an average intensity, and their basic technical skills are insufficiently developed. Seniors cannot perform more complex operations when working with the Internet, or only a low percentage. As for the ability to critically understand the media, Slovak seniors do not have the usual mechanisms for verifying the veracity of information and are not active in this regard. Their level of knowledge about regulatory mechanisms related to the media is also low. This is not the case with communication skills, which are limited to communication via the Internet. Slovak seniors are not active creators of media content, and their level of participation and engagement in public space is also low.

Based on the evaluation of the main research question, we verify the research assumption (H):

H: According to the Study on Assessment Criteria for Media Literacy Levels,[26] the current state of media literacy of Slovak seniors in the area of their user skills, capacity for critical understanding and communication skills related to the use of media corresponds to the achievement of the basic level of competencies.

5 Conclusion

If we talk about seniors, i.e., people aged 65 and over, we have to keep in mind that this is a population group that belongs to the so-called digital immigrants (according to Prensky). During their productive lives, these people have experienced the onset of many new media and digital technologies, with which they learned to operate, communicate with and carry out many activities that we take for granted today. In many cases, this process of 'education' or adaptation to the current situation was 'involuntary' (informal) and took place only to the extent necessary due to the job position and the current need of the individual. In the framework of working life, today's seniors were not so 'forced' to fully embrace the potential and functions of modern technologies, which is currently reflected in their skills and abilities. It is therefore appropriate to think about the necessity of updating these skills (not only) of Slovak seniors, with the aim of ensuring a higher quality of life, overcoming generational gaps, a higher level of information and also with the aim of increasing the overall level of the nation's media literacy.

In this regard, a separate category is the knowledge of seniors about the media, their functioning, historical development, influences and development. It turns out that in the area of knowledge about the negative effects of the media, the existence of non-serious and conspiratorial media, Slovak seniors lag behind. The current, so-called postfactual society, in which more weight is attached to the emotions that information evokes than to the facts that they inform about, requires a perfect knowledge of the negative phenomena associated with the use of media (especially the Internet). In such a society, disinformation, fake news and propaganda are tools of (political) power, they significantly influence public opinion and the overall functioning and direction of society. Despite the fact that e.g., seniors are relatively well informed about the very existence of conspiracy media, it turns out that they cannot identify specific conspiracy media, which can ultimately contribute to increasing their relevance and the perception of these media as authoritative or even serious. Similarly, we perceive shortcomings in topics such as media reality, media ownership or gatekeeping. The skills of their critical approach to media and media content are directly related to the system of knowledge possessed by seniors. In this group of recipients, we observe insufficiently developed mechanisms for verifying the veracity of available information from independent and relevant sources. The 'first choice' of Slovak seniors is to verify the veracity of information with family members and acquaintances, which signals the need to systematically increase this competence across all generations and population groups.

Within communication skills, we identify a generally low level of use of the Internet and digital technologies regarding available functions and potential uses. The claim is also confirmed by a study conducted by *Inštitút pre verejné otázky* (in English *The Institute for Public Policy*). According to the mentioned study, up to two-thirds of seniors do not even consider increasing the level of their digital competences, mainly due to the unnecessary use of technology in their lives, old age, health restrictions, inability to control the given tools, etc.[27] Although the interest and the idea of the importance of this competence may differ across the spectrum of individuals, we realise that this may be caused precisely by the insufficient technical skills of seniors, which in extreme cases, can lead to apathy, frustration and also to the deepening of the generation gap.

Non-formal education organisations play an important role in the process of increasing the level of media competence of seniors. Although the vast majority of such organisations and civil associations are dedicated to the target group of children and youth, there are projects aimed at older people as well. One such project

25   *Study on Assessment Criteria for Media Literacy Levels. Final Report, 2009.* [online]. [2023-09-14]. Available at: <https://ec.europa.eu/assets/eac/culture/library/studies/literacy-criteria-report_en.pdf>.

26   *Study on Assessment Criteria for Media Literacy Levels. Final Report, 2009.* [online]. [2023-09-14]. Available at: <https://ec.europa.eu/assets/eac/culture/library/studies/literacy-criteria-report_en.pdf>.
27   VELŠIC, M.: *Digitálna gramotnosť na Slovensku 2023. Zaostrené na seniorov*. Bratislava : IVO, 2023, p. 3. [online]. [2023-09-30]. Available at: <https://www.ivo.sk/buxus/docs/publikacie/subory/Digitalna_gramotnost_2023.pdf>.

is the international project *LoGaSET: Geolokačné hry ako aktuálne, originálne a inovatívne metódy pre vzdelávanie a učenie seniorov*[28] (in English *LoGaSET: Geolocation Games as Current, Original and Innovative Methods for Education and Learning*) implemented by *Erasmus Plus KA2 – Strategic Partnership for Lifelong Learning*. The goal of the project is the development of digital skills of seniors through geolocation games, the development of the ability to work with information and communication technologies, the development of critical, creative and collaborative use of these technologies. The project *Zlepšovanie digitálnych zručností seniorov a distribúcia Senior tabletov* (in English *Improving the Digital Skills of Seniors and Distribution of Senior Tablets*), implemented by the Ministry of Investment, Regional Development and Innovation of the Slovak Republic, is also devoted to the digital skills of seniors. The aim of the project is to develop the digital skills necessary for effective access to digital public services.[29] Activities in the field of supporting media education and education (not only) of seniors are also initiated by the Ministry of Culture of the Slovak Republic within the program *Podpora a rozvoj mediálnej výchovy a boj proti dezinformáciám*[30] (in English *Promoting and Developing Media Education and Fighting Disinformation*). The programme supports projects aimed at the short-term education of various population groups in the subject area, but also at the education of disadvantaged groups, where it also includes seniors as part of media education.[31] An interesting initiative is the project *#DlhujemeImTo* (in English *We Owe Them*), brought by *Transparency International Slovakia*. Its goal is to implement preventive measures in the fight against misinformation and conspiracies that seniors encounter.[32] In the European environment, the initiative *Eseniors.eu*[33] focused on e-inclusion, healthy and active ageing and fighting the digital divide affecting the seniors is worth mentioning.

Education of seniors, whether non-formal, carried out by non-profit organisations, civil associations, or education carried out by the state or academic environment, is clearly an effective way of strengthening the competences of seniors. However, the importance of increasing the level of media literacy of older people also lies in improving their position in society and reducing the generation gap. It should not be forgotten that seniors are still an active part of our society, participating in its formation and direction (e.g., in elections). It is therefore in the best interest of society as a whole to teach seniors to consciously choose from a wide range of available media content, to make informed decisions based on the information obtained and, above all, to think critically about the media.

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29   *O projekte Digitálni seniori*. [online]. [2023-09-30]. Available at: <https://www.digitalniseniori.gov.sk/?csrt=3252385041064220790>.
30   *Výzva Program Podpora a rozvoj mediálnej výchovy a boj proti dezinformáciám*. [online]. [2023-09-30]. Available at: <https://www.culture.gov.sk/wp-content/uploads/2023/08/Vyzva-program-5.pdf>.
31   Note by the author: The author of the presented study, along with other members of the Faculty of Mass Media Communication University of Ss. Cyril and Methodius in Trnava, also showed interest in joining the program, with a project aimed at increasing the critical thinking competence of seniors. The results of the evaluation of the submitted projects will be available in November 2023.
32   *#DlhujemeImTo*. [online]. [2023-09-30]. Available at: <https://dlhujemeimto.sk/>.
33   *Welcome to Eseniors.eu*. [online]. [2023-09-30]. Available at: <https://www.eseniors.eu/>.