# Mediametry of Social Networks as a Method for Researching Media Literacy of Youth

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Abstract: The article explores the possibility of applying media metrics analysis of social networks in measuring the parameters of media literacy of young people. Metrics reflect not only the number of subscribers and audience coverage, but also the level of user involvement in the content, their actions to create and distribute their own digital content. The question is raised about the interpretative mechanisms of media metrics in assessing the media literacy of young people. The study of the tools for collecting statistics is based on the base of analytics metrics services Popsters and TGStat. It was found that the level of perception and evaluation of information is influenced by the format of the content and typological features of the media resource. The author concludes that the metrics of social networks have sufficient potential for research within the framework of an integrative approach, taking into account qualitative sociolinguistic techniques.

## 1 INTRODUCTION

At the present stage, traditional methods and tools for analyzing the information field are no longer relevant to reflect the processes that occur in the context of an increasingly complex communication system and an avalanche-like increase in the volume of information. As research firm Research and Markets writes in its report, Big data is extracted from information sources and resources so diverse and complex that it becomes difficult to process them using standard database management tools. According to experts, in 2022 the amount of unstructured data exceeded 90% of the total data (Research and Markets, 2023). Most of this information carries strategically important information for identifying trends and making management decisions, but is almost never processed. At the same time, insufficient attention is paid to the analysis of Internet consumption and user behavior in social networks. According to the latest data from the International Telecommunication Union ITU and the global organization of mobile operators GSMA Intelligence, the number of Internet users in the world as of 2023 is 5.16 billion people (Digital 2023: Global Overview Report, 2023). And each user leaves a digital footprint in the form of author's content, reposts, likes, comments, user stories and other indicators of activity. Social media participant data ranges from socioeconomic characteristics, which include information about age, gender, and education, to social status and notes about friends, followers, individual interests, music preferences, and favourite TV channels, magazines, and concerts (Arrigo, Liberati, Mariani, 2021). Their analytics is of high research interest for solving practical problems in the field of marketing, sociology, psychology and media research.

From the point of view of a sociological approach to the invariant essence of capital (first of all, this is the theory of Pierre Bourdieu), social network metrics are considered as a tool for measuring social capital, which contains a potential resource. It begins to "work" under the influence of certain social actions - network relationships or recognition (Melnikova, 2012). Possessing mediametry data, it is possible to analyze and monitor a whole range of indicators in real time for further modeling and forecasting. Thus, the developer of an automatic system for monitoring and analyzing the media environment in the Russian segment Medialogy processes more than 500 thousand media messages and 100 million messages in social media every day (About Medialogy, 2023).

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On their basis, the MediaIndex and SM Index are formed, which are used by practitioners to analyze SMM and the effectiveness of media activities. In general, there are two main approaches to the regular collection of media metrics: the first is aimed at studying the media resource, while the second is aimed at studying the audience and its quantitative and qualitative characteristics. Experts agree that media measurement is an excellent research tool for studying both society as a whole and media literacy among young people in particular.

Let us turn to the key term of our research – media literacy, the essence of which is now the subject of many foreign and domestic scientific works (Potter, 2004; Hobbs, Frost, 2003; Fedorov, 2017; Levitskaya, 2015; Shomova, 2013). Russian researcher of media education A.V. Fedorov notes that the most important task of media education is to teach the audience to analyze media texts of various genres and types, as well as to understand the mechanisms of their creation and functioning in society (Fedorov, Levitskaya, 2017). Media literacy is viewed as a set of skills through which one can critically comprehend media messages. M. Balger and P. Davison describe five major themes around which the phenomenon of media literacy is discussed: socialization of youth, digital teacher training and development of instructional resources, parental support, policy initiatives, and evidence-building (Bulger, Davison, 2018). Thus, the impact of digitalization on the competencies and cultural capital of young people is in the focus of attention of media researchers (Maximova, Nagmatullina, Achmetgalieva, 2018).

Various approaches, methodologies and algorithms are used to analyze the level of media literacy. For example, the DigCompSAT questionnaire developed by the Joint Research Center for Science and Knowledge Services of the European Commission (DigCompSAT Report, 2020) is used to assess digital skills from a labor market perspective. Within the framework of this concept, an analysis is carried out on 5 parameters: information literacy, communicative literacy, digital content creation, digital security, and problem solving skills in a digital environment. The integral index of media literacy of the ZIRCON research company combines similar assessments of skills: effectively find the necessary information; protect yourself from malicious and redundant content; verify and critically evaluate information using alternative sources of information; adequately perceive information and use it effectively (competently) (Maltseva, Shubina, Voinilov, 2016). The results of a comprehensive assessment are formed on the basis of surveys of the population, however, in our context, it is important to “link” the media metrics of social networks and the parameters for assessing the media literacy of young people. This article attempts to answer the main question: how can mediametric data be used in the analysis and assessment of young people's media literacy? Additional questions also arise: what criteria for assessing media literacy can be correlated with indicators of media metrics of social networks; how much the quantitative method of mediametric analysis reflects the depth of the study of young people's media literacy; How can mediametric analysis be integrated into a media literacy research program?

## 2 METHODOLOGY

The main goal of the study is to identify the possibilities of media metrics of social networks to study the level of media literacy of young people. To achieve it, a complex of various complementary theoretical and applied methods was used. Firstly, a theoretical and methodological substantiation of an integrated approach to the study of media literacy and user activity in social networks was carried out. Secondly, the study of statistics collection tools was carried out on the basis of the analytics of the metrics of the Popsters and TGStat services. As an empirical base, we used the metrics of the most widely read Telegram channels in Russia in the segment of teenagers and youth of the age group 12-24 years old, which were included in the TOP-10 in terms of coverage according to the Mediascope research company as of November 2022 (“Ax 18+”, "Dima Maslennikov Blogger", "Ax Live", "VPSh", "Daria Kaplan's Antifans", "Leonardo Daivinchik") (Social media, Mediascope, 2022). The content was sampled between March 10 and April 10, 2023. Also, the authors of the study turned to the semantic analysis of individual cases included in the sample.

## 3 RESULTS

Engagement Rate (ER) allows you to analyze the activity of user interaction with content, and the analysis of publication views (visibility ratio) - the speed of content consumption in the first 24 hours after publication. It is impossible to consider this indicator in isolation from the message itself, the context and the discourse unfolding around the topic.

Blogging content showed higher media consumption in the first hours of publishing a post than news outlets (35-47% for blogs, 12% lower news views). ER metrics for lifestyle content range from 4% to 44% in terms of engagement in interactions on the studied blogs, thus demonstrating a high amplitude of the difference. The ER metrics of news channels line up on a smoother curve in the engagement graph. Thus, the level of perception of information and its evaluation is influenced by the content presentation format and the typological features of the media resource. The engagement index and the dynamics of content consumption can characterize the level of passive perception of information - part of the media literacy criterion "the ability to adequately perceive information and protect yourself from aggressive content".

Traffic sources allow us to track the resource from which the user made the transition, as well as obtain information about the demographic and geographic characteristics of his profile. The mediametric indicators of the traffic of the Leonardo Daivinchik channel (category Humor and Entertainment) demonstrate that more than a third of users live in Moscow and the Moscow region. This example casts doubt on the possibility of extrapolating the findings from one channel to the all-Russian experience of young people's media activity (in connection with the question of sample representativeness).

The analysis of media metrics as a statistical tool showed the need for a relevant interpretation of the indicators. Each metric requires the construction of its own gradations, which make it possible to uniquely correlate the level with the assessment, for example, “low”, “medium”, “high” in a separate category of criteria. Thus, according to TGStat data, the most viewed publication on the Ax 18+ channel during the study period attracted the attention of 2.6 million users (leader: “Escherichia coli was found in 40% of Philadelphia rolls in Russia,” said the head of Roskachestvo) . At the same time, a different user activity is demonstrated by the metric of the number of comments on this publication - 1.9 thousand. This indicator correlates with the average level for the channel - 1.8 thousand comments. The most discussed publication on the Ax 18+ channel, “In Lipetsk, a 12-year-old zoomer is tired of living this hard life and made a landing from the 17th floor”, received almost 30,000 comments during the study period with a view metric of 2.6 million. activities - views, forwards, reposts, comments, reactions - were present in 87% of the studied content. As a result, the metrics are comparable in similar groups of indicators, and the assessment of their levels is formed based on the average statistics for the channel and for the group of similar research objects. For example, for blogs with 10,000 readers and for news channels with 1 million subscribers, the average engagement index will be differentiated.

The analysis of mediametric data demonstrates its effectiveness in studying the issues of media manipulation and media literacy in the context of the theory of second-level agenda setting and framing (Kazakov, 2020). In other words, to what extent do users of the topics actualized by the media environment, to what extent do they share the point of view and value system of the information source (D. Morley's theory, according to which the types of perception are classified into dominant reading, coordinated reading and oppositional reading). Deeper analytics was shown by an integrative approach that combines mediametry tools and a qualitative sociolinguistic method of discourse analysis.

Manipulation markers, identified by semantic analysis, characterize both the primary author's content - news, and secondary content - comments and reactions to the post. This allows you to identify factors that influence the strengthening of informational occasions. For example, in the most popular publication of the Dima Maslennikov Blogger channel in terms of user reaction for the study period (1 million views, 170 thousand reactions, of which 96% are positive), there are stimulus markers: “this is not clickbait!”, “look at this small video to the very end!”, “Put a reaction!”. There is a correlation between the dynamics of metrics and media effects, reflecting the level of trust in the source of information, enhancing the entertainment component of infotainment, communicative aggression, media interest and various forms of media manipulation. The Popsters service provides a set of tools for summarizing the text information of posts, calculating the average effectiveness of posts that mention certain words. The greatest attention of readers is attracted by words with a high level of impact on the emotional sphere, hyperbolization, the use of intimidation tactics: “fear”, “fight”, “difficult”. The indicators of the frequency of using words in posts, in metrics in terms of the visibility coefficient of these words and user activity, have differences.

# 4 DISCUSSIONS

Turning to the analysis of social network metrics, Yu.A. Palacheva writes about one of the central problems - the subjective assessment of the

effectiveness of the use of certain mechanisms for working with the target audience (Palacheva, 2021). The results of the study, in which we tried to correlate metrics with media literacy criteria, revealed a key problem - the complexity of developing a methodology taking into account media effects and media influence, user scenarios and building multiple interactions. The question concerns the topic of copyrighted content and reactions to it: can the user highlight the author's key message, verify the data presented, formulate a competent message, and take a responsible approach to creating and distributing their own content. Therefore, a separate field for research is secondary content - comments through which feedback is given on the message read. The behavior of users when creating their own digital content shows us how the participant fits into the frames and social norms of this or that virtual community. Particular attention should be paid to the study of the digital footprints of those users who avoid expressing their opinion in the form of separate text comments. In this case, the response to the manipulative potential of a post can be measured through metrics by the number of views, forwards, reposts, and reactions. The question arises about the sample: it should be representative of the entire population of Russia (however, not all accounts have real owners, or one user can have several accounts at once).

# 5 CONCLUSIONS

The use of mediametry as a research tool is being updated in the conditions of an avalanche-like increase in information and data growth. However, the coefficients of engagement, attractiveness, sociability, visibility and other metrics require interpretative mechanisms based on multivariate analysis. As the experiment showed, social network metrics have sufficient potential for interpretation in the framework of the analysis of youth media literacy. When detailing mediametric data, their indicators can be correlated with the criteria of media literacy, based on the specific formulation of the research objectives. The tools of mediametric analysis fully contribute to revealing the depth of the study of media literacy only in the context of an integrative approach, taking into account qualitative sociolinguistic methods.

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