# Stressogenicity of Media Noise in the Conditions of Background Media Consumption

Yulia Valentinovna Andreeva<sup>1,\*</sup> and Alla Kerimovna Polianina<sup>2</sup>

Abstract: The authors of the paper present for the first time the concept of media noise in the living space of modern children; they also introduce the concept of media noise as forced media consumption in a background (backdrop) format, and consumption in parallel with the main activity (foreground). The stressful effect of the operation of screens and players in the background on people in this space, and the impact of the inclusion of children in a continuous media stream are assessed. It is noted that pervasive media increase the potential of psycho-emotional impact through trance methods of exposure affecting the cognitive, affective and behavioural sphere of individuals, and this forces them to consume information, burden the information space of children, and qualitatively change the social situation of their development. The paper presents the findings concerning pilot studies of the media noise phenomenon and the state of media noise. The existence of a relationship between various parameters of forced background media consumption is shown; the main situations of background media consumption, as well as the reasons for the independent media noise initiation and its duration, are given. The aggravated negative impact of background media consumption in connection with the new life realities of mankind during the period of total immersion in the media space is noted; the last is caused by the need for social distance.

Keywords: Media Consumption, Social Distance, Media Noise, Information Stress, Media Exposure.

#### INTRODUCTION

In 2020, the world community was in a situation of global collapse as a result of an unusually powerful informational "storm". In Russia, an ever-growing wave of information flow about the pandemic made the mass audience plunge into a state of panic fear and anxiety, which led to a change in the rules of life. Millions of Russians left their jobs, their usual activities, adopting the concept of restrictive measures, and the "lockdown" strategy (Denisov, 2019).

The author of the effect of "magical" media influence known as part of the scientific propaganda theory has explained the effect of the social activity of the information environment: important news, like a "magic bullet", will reach the consciousness of every individual, even if they are not active consumers of the media. Let the individuals do not watch TV, read the news, but important information reaches their consciousness indirectly (Polyanina 2019). However, the official media in these troubled days regained their position. They turned on television sets or watched online news releases and daily statistics on the spread of the virus were monitored in each house. So, according to the MediaScope (https://telesputnik.ru/materials/tsifrovoe-

Background media consumption is a poorly understood phenomenon that should be interpreted in the context of information stress. The information flow from a media source to its recipients is seen as unmediated and causing instant responses among the audience. This form of one-way communication presents people as passive and helpless in the face of a strong communication impact. An increase in the degree of media saturation of life can give rise to risks for the development of children. The identification and management of risks are one of the conditions for the

E-ISSN: 1929-4409/20 © 2020 Lifescience Global

<sup>&</sup>lt;sup>1</sup>Kazan Federal University, Doctor of Pedagogical Sciences, Professor of Higher School of Journalism and Media Communications, Kazan Federal University, Russia

<sup>&</sup>lt;sup>2</sup>Lobachevsky State University of Nizhni Novgorod, Samara State Transport University, Russia

televidenie/news) in Russia, the rate of general television viewing has grown by 101%. And this was despite the fact that every year TV lost its position more and more among the Russian audience (an average of 15 per cent per year). Thus, we were dealing with increased media exposure, with the inevitable build-up of informational background. Pandemic storytelling gathered at their blue screens both the older people and those who were not the "initiator" of the request: adolescents and children of Russia were also hit by an information wave. During distance learning of students of the Higher School of Journalism, surveys were conducted that showed a high level of background consumption (more than 80 per cent of respondents). At the same time, half of the respondents said that they were "hostages" of the information impact. Today we are dealing with passive background destructive consumption of information (Stangl, Cunningham, Blake, & Yeh, 2019).

<sup>\*</sup>Address correspondence to this author at the Kazan Federal University, Doctor of Pedagogical Sciences, Professor of Higher School of Journalism and Media Communications, Kazan Federal University, Russia; Tel: 89600373454; E-mail: a.researcher40@yahoo.com

development of a humane and progressive society (Toubia, Iyengar, Bunnell, & Lemaire, 2019).

However, the effect on children of the media consumed (either consciously, or not) stereotypical background of life activity remains little studied. The riskogenicity of this factor and its effect on the development of children were not evaluated. The correlation between the practice parameters of the background media consumption mode and mental reactions, as well as the social portrait of a perceiving subject, has not been studied.

Staying in the conditions of broadcasting a media signal accompanying children in any public places, shopping centres, cinemas, school, and, most importantly, at home, in a situation of familiar security, exploits the sensory organs and stimulates the reaction, including a change in the emotional state. A serious change in the lifestyle of modern children, especially in their leisure part, requires an analysis of the risk factors of the children's living space. There is a need to formulate the position of society regarding the conditions for the consumption of media signals for modern school children. It seems that changing public attitudes towards filling the child's leisure, family and home space as a source of well-being and protection requires measuring the degree of media concentration of the children's development kenvironment (Andreeva, & Polyanina, 2019).

The peak cycle of the global information explosion, rapid transformations in the media sphere and the total digitalization of public space actualize the range of problems related to ensuring the information security of individuals and society. Media influence in the modern world has become a total phenomenon that has no boundaries of time and space (discrete, diachromic, diatopic); an avalanche of information messages, narratives and incentives fall upon an individual regardless of his/her sanctions (requests) to receive a media signal, without regard to age and readiness for decoding, and critical analysis of message meanings.

In a conceptual sense, the scientific goal of the study is to identify the stressful factors of the influence of media noise on children; it is due to a social request for the search for adaptive strategies applicable in modern educational teams; the creation of adequate stock of means on protection against unwanted and unconscious effects of a media signal on the fragile consciousness of students; development of tactics for protecting the boundaries of personal information

space, autonomy, and the inviolability of the child's cognitive and emotional sphere. The phenomenology of the digital world requires constant research, since the media space builds up technologies and expands the possibilities of influencing the psycho-emotional spheres of an individual, and on the mass consciousness. So, today, speaking about the development of world media, we focus on the phenomenon of multimedia and transmedia features: TV advertising goes to Internet platforms; all the informational diversity of YouTube and other sites is included in the classical repertoire of television content. Information diffusion blurs the boundaries within the media space, creates the conditions for the total inclusion of the subject in the media stream, diachronism and diatopia of the information impact. Investigating the phenomenology of media noise using resource-based approach broadens understanding of the possibilities of including children in the digital space, allows creating strategies for childhood information security; it also equips teachers and child psychologists with the necessary knowledge and understanding of the stressful characteristics of media noise (Denisov 2019).

All-pervasive media that increase the degree of psycho-emotional impact and affect the cognitive, affective and behavioural sphere of a person, use trance-like methods of influence and providing forced consumption of information, aggravate the children's information space, and qualitatively change the social situation of their development.

In the aggregate, modern risk factors for the consumption of media as a background are the availability of media reproduction facilities to every person (child) regardless of their social status and responsibility, the lack of state and public regulation mechanisms for playing audio and video in public places, the lack of hygiene standards and requirements for the information environment, the acceleration of the movement of information (acceleration of information flows). The main thing is the lack of adaptation mechanisms to the new media environment, as well as the strength of well-established patterns of spending leisure time accompanied by popular music, a priori recognition of the "value" of any musical works.

#### **METHODS**

To date, there are no studies on the degree of media saturation (concentration) of children's living space and the current situation of the children's

immersion in a media stream that is incessant, "current" in parallel with other activities as a necessary empirical basis for the development of methodological recommendations. There are many studies of various psychological conditions, including states of stress and anxiety. The concept presented by us is based on the following theoretical and practical developments: the phenomenology of stress (Cannon, 1932); adaptation theory (Castells, 1996, 1997); information stress theory (Livingstone Sonia, 2008); mediatization of (McLuhan, 1964); power potential of the media (Postman, 1982); expansion of the "logic of media" (Ababkov & Perre, 2010); the theory of "universal media" and media diffusion (Andreeva & Polyanina, 2019); informational alarm (Bodrov, 2000); information hygiene (Voiskunsky, 2005); adaptation to the network (information) society (Eremin, 2005); information overload (Denisov, 2019); artificial stimulation of attention.

The research methodology is also based on approaches to changes in modern childhood under the influence of informatization and mediatization of life: the disappearance of childhood, the disappearance of "adult secrets", the coincidence of the world of adults and the world of children (Ignatiev, 2017) modification of the social status of childhood (Kolomiets, 2017); stratification of the children's group and the difference in a "cultural capital of the family" (Mayorova-Scheglova, 2014); crisis of "a norm idea" (Mironov, 2015).

When formulating the concept of media noise, we took into account such interpretations given by researchers to the phenomenon of information noise, such as "the process of circulating a large number of information of various types" (Polivanova, 2016), "redundancy of information in a communicative environment that causes a functional disorder of its systems" (Poludina, 2011); "the problem of consumption in media communication" (Polyanina, 2019).

The study is based on the concepts of media noise and media noise pollution introduced into scientific circulation. To date, there are no special scientific studies aimed at deeply studying the influence of background media consumption, which has become stereotypical, the influence of the social pattern of using media as a background, on the state of a consuming subject, their mental health and social characteristics. The situations of the highest concentration of media signals and the effect of staying

in these situations on the health and development of children are also not investigated.

The scientific goal of the study is the identification of stressful factors influencing on background media consumption of children; it is due to a social request for the search for adaptive strategies applicable in modern educational teams; the creation of an adequate arsenal of means of protection against unwanted and unconscious effects of the media signal on the fragile consciousness of school children, the development of tactics for protecting the boundaries of personal information space, autonomy, and the inviolability of child's cognitive and emotional identification of the most common strategies for background media consumption, (the study of routine behavioural patterns of children and parents as a habit of using a media source as a background of life); identification of typical features of the background consumption influence on individuals.

Conceptual categories introduced into circulation have the following definitions. Media noise is an environmental factor in which dense signals of various media sources come in the background; they are usually not controlled by a perceiving subject and force his/her sensory systems (perception organs) to react, and to interact with the media source, automatically mobilizing the body's energy systems. Media noise is a factor contributing to the development of informational (emotional) stress and anxiety. Media noise pollution is the degree of saturation of a person's living space with media noise. It is determined by calculating the frequency and duration of stay in noise situations, the subject's ability to establish control over the information source, and the characteristics of the forced media background consumption situation. This is the saturation (concentration) of living space with media signals that force and exploit the organs of perception. Factors affecting the degree of media noise can also be called the existence of external control over the consumption of media (parental control, school control) and the number of devices for personal use, if the subject of perception is a child.

Media noise differs from information noise in that the source of media noise can always be established: it is a certain media channel. It seems that media noise may be the result of information overload and threshold use of the sensory organs, hyperstimulation by informational stimuli of the human sensory organs, and the result of compulsion to react.

The model of the stress-producing influence of media noise can be represented as a sequence of phenomena: staying in a media noise situation, the appearance of a noise pollution state, the occurrence of information stress or anxiety.

## **RESULTS AND DISCUSSION**

In the summer of 2019, two pilot studies were conducted. The first pilot study was conducted to identify the correlation between the level of media noise and the level of anxiety simultaneously in one respondent and to formulate conclusions. The sample is small, but corresponds to pilot studies: 42 respondents are students of the secondary special education department of Lobachevsky University aged 15-17. The dates of the studies were June 2019. The venue was the city of Nizhny Novgorod. The level of anxiety was determined by the psychodiagnostic method for a multivariate assessment of children's anxiety tested with high validity and already have a key to analysis developed by the State Institution "St. Petersburg Research Psychoneurological Institute named after V.M. Bekhterev ". The media noise pollution was determined based on the developed author's technique (questionnaire). The participation was anonymous. By means of the correlation matrix, a correlation constellation of criteria (parameters) of media noise pollution was built and the existence of a relationship between the individual parameters (factors) was established. In a managerial sense, this galaxy is used to understand, the impact on which factor may affect other factors. The study confirmed the availability of a positive relationship, and the average correlation dependence; the value for the ratio of the level of anxiety to the degree of media noise pollution was 0.52. Next, indicators for each of the criteria for media noise were correlated with indicators of anxiety.

Thus, the main mutually correlating parameters of media noise were identified: 1. duration and frequency of background media consumption in media noise situations (forced media consumption); 2. The tendency to interrupt main activities (foreground activities) for inclusion in active communication (telephone conversation, letter, message, chat); 3. The number of media sources used simultaneously; 4. The number of media signal sources (devices) available personally.

Also, media noise situations and their "volume" (frequency of meeting with him) in life were revealed as a result of the study. So, 76% of respondents

encounter media noise (forced background media consumption) in shopping and leisure centres and shopping spaces. The second place is occupied by a home, 13% of respondents indicated that this was where forced background media consumption most often takes place. The third place by the frequency of meetings with media noise is occupied by transport: 6% respondents indicated it. The fourth place is taken by situations of rest (walking, traveling) - 2%. It is noteworthy that the degree of media noise is differentiated by gender. The study showed that media noise pollution for girls is greater than for boys. So, girls get stuck with the situation of media noise at home twice as often as young men: 33% versus 16%.

The second study was conducted on the basis of Kazan Federal University. The date was June 2019; the place was Kazan. The survey was conducted among students for self-assessment of their immersion in the media environment and the media noise stressproduction effects. The following was revealed. Firstly, the motivation for background media consumption is to avoid the feeling of loneliness, fear of silence and estrangement; it "neutralizes loneliness", gives a sense of calm, security, comfort, speeds up the process of "thinking", soothes, and relieves stress. Secondly, a comfortable level of media noise is at the level of sound power of the interlocutor's voice, as well as a comfortable level of noise depends on the actual activity. Thirdly, the duration of media consumption is 8-11 hours per day, and no more than 2 hours from them takes place consciously. Fourth, the awareness of media noise depends on the physical condition: fatigue, illness.

# **SUMMARY**

With the transformation of society into a digital space, children become a particularly vulnerable social group. The statistics of suicides and deviant manifestations on the basis of media dependence among schoolchildren is a tragic confirmation of that statement. Intellectual. emotional. psychophysiological age-related features of childhood are unstable value-semantic constructs, blurred or unformed moral and ethical boundaries, unformed thinking strategies and critical analysis. Due to age, they do not allow revealing the resource of individual adaptive mechanisms, which makes children simply defenceless against the digital environment.

As the study showed, coming out to be at home in a single media space, children are forced to consume media messages, the active recipient of which are the oldest members of the family. It seems that it is at home where the level of influence of media noise (including network resources, radio and TV) on children increases significantly. At the same time, protective resources in the home environment are weakening even more; cognitive dissonance arises, because the family a priori gives the child a sense of security. Meanwhile, children are not able to block the source of the media signal in other situations; for example, they are forced to consume the media signal in shopping centres, in transport, in parks, and other public spaces. The background influence, in this, case is nothing more than a kind of media violence: sensory channels (visual-audio) are artificially stimulated overcoming the threshold limits of the child's sensitivity; that has a traumatic effect on young recipients.

#### **CONCLUSIONS**

The results of the pilot studies have indicated that there is a strong connection between the identified parameters of media noise (the frequency of encountering and the length of stay in a situation of forced media consumption in the background format), the subjective characteristics of a consumer, and negative psychological states. Potentially dangerous media noise pollution situations requiring close examination have been identified.

The inconsistency and spontaneity of social control over the distribution of media signals and media consumption, including in public places, gaps in state and legal regulation of the use of media as a background, audio filling in the life space, as well as the insufficient study of the problem of background media consumption necessitate further research.

### **ACKNOWLEDGEMENTS**

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University. The authors are sincerely grateful to everyone who took part in the experiment: students, employees of Kazan Federal University and the National Research Nizhny Novgorod State University named after N. I. Lobachevsky. Special thanks to the department of publication activity of KFU and paper translators.

#### **AUTHORS CONTRIBUTION**

The research and scientific paper were prepared and developed by two authors:

Yulia Valentinovna Andreeva the authors' task included a critical review, approval of the final version.

Alla Kerimovna Polianina the author's tasks included structuring, analysis of original research.

#### **REFERENCES**

- Ababkov, V.A., & Perre, M. (2010). Adaptation to stress. SPb .: "Rech",- 169 p.
- Andreeva, Yu.V., & Polyanina, A.K. (2019). Information noise in the space of child development: a conceptual rationale. Communicology, 7(2), 109-121.
- Bodrov, V. A. (2000). *Information stress: Textbook for universities.* M.: Per Se, 352.
- Cannon, W. B. (1932). The wisdom of the body. New York: W. W. Norton.
- Castells, M. (1996, 1997). The Information Age: Economy, Society and Culture. Maiden (Mac) Oxford (UK), Blackwell Publishers; Vol. 1: The Rise of the Network Society, 556 pp; Vol. 2: The Power of Identity, 461 pp
- Denisov, E.I. (2019). Robots, artificial intelligence, augmented and virtual reality: ethical, legal and hygienic problems. *Hygiene and sanitation*, *98*(1), P. 5 <a href="https://doi.org/10.18821/0016-9900-2019-98-1-5-10">https://doi.org/10.18821/0016-9900-2019-98-1-5-10</a>
- Eremin, A.L. (2005). *Noogenesis and the theory of intelligence*. Krasnodar: SovKub, 356 p.
- Ignatiev, V.I. (2017). Information overload of the social system and its social consequences. Sociological studies, 7, 3-12.
- Kolomiets, V. P. (2017). Sociology of mass communication in a society of communication abundance. Sociological studies, 6 3-14
- Livingstone Sonia. (2008). On the mediation of everything. *Journal of communication*, *59*(1), 1-18
  <a href="https://doi.org/10.1111/j.1460-2466.2008.01401.x">https://doi.org/10.1111/j.1460-2466.2008.01401.x</a>
- Mayorova-Scheglova, S.N. (2014). Transformation of childhood at the beginning of the XXI century: to clarify the concept of social construction of childhood. *Bulletin of the Russian State Humanitarian University*, *4*, 173-183
- McLuhan, M. (1964). *Understanding Media: The Extensions of Man.* Cambridge; London: MIT Press, 355 p.
- Mironov, D.F. (2015). Information noise and the educational process.

  Bulletin of the St. Petersburg State University of Culture and

  Arts. 4, 24-30
- Polivanova, K. N. (2016). Childhood in a changing world. *Modern foreign psychology*, 2(5), 5-10 <a href="https://doi.org/10.17759/jmfp.2016050201">https://doi.org/10.17759/jmfp.2016050201</a>
- Poludina, V.P. (2011). Information noise on the Internet as a problem of communication consumption. Journal of Sociology and Social Anthropology, XIV(5(58)), 386–394.
- Polyanina, A.K. (2019). Information security of childhood in the context of a new media reality. *Information Society, 1-2,* 108-115.
- Polyanina, A.K. (2019). The boundaries of creativity: social control of the ethical aspects of advertising in the context of children's information security. *Bulletin of Tomsk State University. Philosophy. Sociology. Political science, 51*, 140-148. <a href="https://doi.org/10.17223/1998863X/51/14">https://doi.org/10.17223/1998863X/51/14</a>
- Postman, N. (1982). The Disappearance of Childhood. N. Y.: Delacorte Press, 177 p
- Selye, G. (2011). Stress without distress. M .: "Progress", 2009. P. 123-139. Cox T. Stress. M.: Medicine,- 264, 275 p.
- Stangl, A., Cunningham, A., Blake, L. A., & Yeh, T. (2019, October). Defining problems of practices to advance inclusive tactile media consumption and production. In The 21st International

1745

ACM SIGACCESS Conference on Computers and Accessibility (pp. 329-341). https://doi.org/10.1145/3308561.3353778

Toubia, O., Iyengar, G., Bunnell, R., & Lemaire, A. (2019). Extracting features of entertainment products: A guided latent dirichlet allocation approach informed by the psychology of media consumption. Journal of Marketing Research, 56(1), 18-36. https://doi.org/10.1177/0022243718820559 Voiskunsky, A.E. (2005). Psychological studies of human activity as a result of electronic exposure. - M.,- P. 39

Zhilavskaya, I.V. Theory of universal media: substantiation experience. International electronic scientific and educational journal "Media. Information. Communication "http://mic.org.ru/new/676-teoriya-vseobshchikh-media-opytobosnovaniya"

Received on 25-10-2020 Accepted on 27-11-2020 Published on 17-12-2020

#### DOI: https://doi.org/10.6000/1929-4409.2020.09.197

© 2020 Andreeva and Polianina; Licensee Lifescience Global.

This is an open access article licensed under the terms of the Creative Commons Attribution Non-Commercial License (<a href="http://creativecommons.org/licenses/by-nc/3.0/">http://creativecommons.org/licenses/by-nc/3.0/</a>) which permits unrestricted, non-commercial use, distribution and reproduction in any medium, provided the work is properly cited.