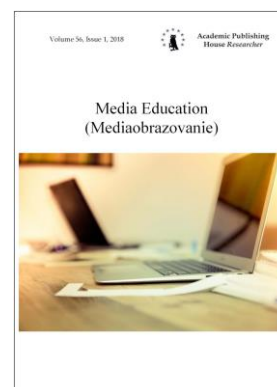


Copyright © 2019 by Academic Publishing House Researcher s.r.o.



Published in the Slovak Republic
Media Education (Mediaobrazovanie)
Has been issued since 2005
ISSN 1994–4160
E–ISSN 1994–4195
2019, 59(1): 37–48

DOI: 10.13187/me.2019.1.37
www.ejournal53.com



Student as the Center of Media Education: Personality Boundaries and Communicative Activity

Natalia Iogolevich ^{a,*}, Svetlana Vasyura ^b, Marina Maletova ^b

^a Industrial University of Tyumen, Russian Federation

^b Udmurt State University, Russian Federation

Abstract

The significance of human-centered cross-disciplinary research and opportunities to apply existing laws in research intersectional areas are in the focal point of the authors. The article demonstrates research results on personality boundaries and student communicative activity based on the approaches of media education. The research is underpinned by the assessment method of change in psychological boundaries that is “MIG-TS-2”. It is also based on A.I. Krupnov’s Judgement Test that allows testing human communicative activity.

One in ten students associates Internet with extending psychological boundaries and overt personal space. One in six students is subjectively dependent on the Internet: each in five Internet users take an advantage of the internet to create their image. Literally each in two students note a greater convenience of technologies.

The authors come to conclusions that students transform their personal boundaries resulting from Internet use. Communication boundaries extend and cause reflection of boundaries’ violation. The need related to convenience and functionality of Internet is inevitably transformed. Being the center of media education, students, having barriers to their communicative activity, may be in a favorable position to take an advantage of Internet connections for cognition and new image-creating.

Keywords: media education, subject, psychological boundaries, communicative activity, communications, Internet.

1. Introduction

At present one of major traits of human cognition is synergy of classical natural sciences and humanitarian knowledge, reflected in interdisciplinary approach to human studies in a number of diverse areas: biological, psychological, philosophical, sociological research. Advanced information technologies and intensive computerization provide the basis for new requirements to an individual, their development and change. With the research of external impact on personality, influence of the society and its institutions, scientists attempt to understand the effects of the Internet, cyberspace and virtual reality.

In this regard, it seems critical to study the impact of technical devices on psychological boundaries and personal communicative activity of regular Internet users, a social group of students.

* Corresponding author

E-mail addresses: iogolevichni@tyuiu.ru (N.I. Iogolevich)

2. Materials and methods

In a variety of psychology branches (psychology of personality, social psychology, pedagogical psychology etc.), researchers pay attention to diverse aspects of a student activity and development, serving for learning purposes. Psychologists tend to distinguish between adherence to technical devices (possibilities provided by a particular technical device) and addiction to technical devices (new technical opportunities in addition to existing adherence). Yet, in their research works writers emphasize the difference between information (a wide set of facts) and knowledge (the result of reflections and cognitive processing, integration and evaluation): in technologies there is much of the first dimension and very often little of the second dimension (Rasskazova et al., 2015: 14; How..., 2009). The danger is in accepting technology as content and a final product of educational process rather than perceive it as a tool and a primary source. For example, students do not make an attempt to process information from sites; neither show any reflection nor make comparative valid analysis of information from authors' works. There is another problem: the replacement of real educational interest by the anticipation of entertainment; the reason is attractiveness and interactivity of technologies.

The aim of the research is to identify personal boundaries and communicative activity of students – active Internet users. This assumption and problem-solving are of theoretical importance and practical significance for education.

The research hypothesis is that an active use of technical devices may cause personality change that is related to extending boundaries in communications with the follow-up change in needs.

To prove this assumption two-stage empirical research was carried out:

- at the first stage transformations in student psychological boundaries are studied on the basis of “MIG-TS-2”;
- the second stage engages analyzing research findings: first, comparing indicators with “MIG-TS-2” and second, identifying parameters of communicative activity based on A.I. Krupnov's Test of Judgement (Krupnov, 2007).

The method of Internet-based assessment of psychological boundaries change (MIG-TS-2) (Rasskazova et al., 2015) was chosen because of the theoretical model, extending the scope of human boundaries' transformation. (Mcluhan, 2003). The authors view boundaries' extension as one of other possible options to change psychological boundaries related to technologies. The changes in psychological boundaries caused by technologies act as a framework for other changes and create attitudes to technologies and technical devices, experience emotions and facilitate technological engagements.

Four categories of change (development of psychological dependence, extension and dilution of boundaries, change in needs and activities) are indicated in the psychological model of technology' impact as well as meta-category of reflexing and regulations outcomes of technological progress (Rasskazova et al., 2015: 55). Scales of “MIG-TS-2” method allow assessing following attributes:

1. Psychological dependence; no-repudiation and subjective addictions;
2. Change of psychological boundaries: 1) extending boundaries in communications (delusional experience of other people accessibility via technical device, coherent expectations and activities), 2) reflection to bounds violation (awareness and emotionally negative response to the violation of own psychological boundaries), 3) preference to simple technologies (preference to technology that is easy to use), 4) preference to multiple technology (preference to technology because of new options);
3. Change in needs inserts three parameters: function (subjective salience of technical performance), convenience (subjective salience of convenience and availability of optional functions) and image-making (perception of a technical device as an essential element of an image);

A.I. Krupnov's Test of Judgements was used to evaluate student communicative activity on the basis of such dimensions as: dynamic, emotional, motivational, cognitive, regulatory, productive dimensions, reflection and self-esteem (Krupnov, 2007). A.I. Krupnov's model represents the system of motivational-meaningful and instrumental-stylistic attributes by providing constant aspirations and willingness to interpersonal communications. Motivational – meaningful cluster of psychological variables includes motivational, cognitive, and productive dimensions, instrumental-stylistic cluster involves dynamic, emotional, and regulatory attributes.

Motivational dimension is tested on the basis sociocentric and egocentric incentives. Cognitive component is characterized by understanding its major functions on the one hand, and by the awareness, on the other. Productive dimension is evaluated on the basis of communicative results that affect the subject and subject-activity areas.

A dynamic dimension of communicative activity is assessed by aspirations to communications, by ergicity, by narrow contacts, anergic. An emotional attribute is tested through dominance of sthenic and asthenic emotions. A regulatory component is built up on active or passive self-regulation.

Motivational-meaningful dimensions are mainly determined by external environment factors, whereas instrumental-stylistic ones are mostly dependent on natural personal attributes (Levinas, 1969; Krupnov, 2007; Vasyura, 2008).

The research engages 439 students of their first, second and third year studies in Udmurt State University (199) and in Tumen Industrial University (240), and aged from 18 to 25 years old.

SPSS 13 for Windows was used to provide statistical data processing.

3. Discussion

The beginning of the XXI century saw the crisis of world civilization, and the transition to the new era of post-industrial society, where information and knowledge have become major production resources. A human being lives and acts in global information space, the role of which is growing immensely. Television, Internet, Social media with their virtual reality and cyberspace have brought to the development of completely new methods and forms of impact on human beings, to completely new social reality and transformations in interactions and communications among populations.

Due to publishing requirements, we have to leave most of philosophical and sociological discussions beyond the scope of the article. The discussions are largely devoted to the methods of society analysis based on social and philosophical knowledge. And that, as described in M.V. Usova's research, has been found in a diverse reflection of a number of concepts and theories. The names of those ones showcase the essence and place in such outstanding markers ("mass society", "postmodernism", "risk society", "knowledge society", "information society", post-industrial society", "consumer society", "open society", "virtual society", "social media society") (Usova, 2014). Obviously a new image of a real man is in the focal point of philosophers. "However, new does not mean different. It implies updating to be complied with new life realities and new vision of a human being... Yet the original meaning of virtual reality was based on seeking some ideal image, ideal man" (Lukjanenko, 2017: 161).

Primarily, works of media educators and media psychologists are in the focal point of our research. Thus, the research work by A.V. Fedorov, who is a founder of the best Russia's research school across the area of media competency and media education, analyzes the history of media education and carries out deep and multifaceted studies on the theory and methods of media education. He also describes main media educational concepts. He compiled the thesaurus which is made up of most modern media educational terminology that showcase major models, educational concepts, ideas and objectives of media education, media pedagogy, media competency and media literacy (Fedorov, 2009; 2014; 2015).

The goal of media education is to develop students' ability of critical thinking; ability to perceive and analyze media texts. Overall, the development of such abilities may be generated and articulated as a broad goal, which is to educate and prepare younger generation to life in the contemporary society (Fedorov, 2015: 32-33). Russian researchers in media education emphasize the importance of students' personality development and their abilities to practically work with diverse media texts and to create own media products (Fedorov, Levitskaya, 2015). A.V. Fedorov suggests defining media education as "the process of personality development by and within mass media" We share this view. He further adds, the aim of the process is to build up "communicative skills, creative abilities, critical thinking, abilities to fully perceive, interpret and assess media texts with further ability to work in different media formats" (FCC, 2009; Fedorov, 2009: 6).

As there is no any universal theoretical concept of media education in today's media world, the analysis of key media education theories (protectionism, critical thinking, cultural and social-cultural, semiotic, esthetic, "practical" concepts, ideology, "consumption and satisfaction", ecological and ethic theories) demonstrate that all approaches can be split into two groups according to their authors' aims. The first group comprises theories that aim to prevent younger

generation from negative impact of media. The second group underpins theories supporting the importance of personality development. Media education is oriented to the development of mental processes such as perception (of media texts), visual memory, and thinking (imagination, critical thinking, logics, and creativity). Secondly, it involves the development of communication skills, understanding non-verbal communications, emotional intellect, and the ability to create media texts. The latter is, obviously, linked to the creativity and a creative personality. The attention is also given to the development of person's motivation and values, their civil stance. In this regard media information is assessed on the basis of esthetic and moral content, stemming from discussions on moral and philosophical problems.

Goal-achieving in all theoretical approaches implies training based on practicing media texts (analysis, critical thinking, interpretation, identifying political, social, esthetic, commercial preferences of authors: creating own media text). Therefore, media educators classify media education by several subgroups:

- media education for media professionals;
- media education for teachers (vocational pedagogic education, retraining programs for school teachers and university faculty and staff);
- media education as part of general education;
- media education in centers for additional education and in leisure clubs;
- distant media education for all: school and university students, and adults through access to press, TV, radio, Video, DVD, Internet;
- independent lifelong education (Fedorov, 2015).

Alongside with the negative impact of media, most world researchers take a close look at opportunities provided by media, which will encourage personality development. In their research (Terrones Rodríguez, 2018; Gleason et al., 2018; Chugh, 2018) of the “digital citizenship phenomenon” (rights and responsibilities in virtual reality) the authors analyze threats of life on-line (cyber bullying, sexting, cyber suicide, other psychological and physical threats). Meanwhile they discuss great online opportunities so as to enable students to acquire media literacy and use Internet safely and responsibly. In terms of this, the researchers suggest a student-centered model based on “authentic sociocultural practices of youth” (Gleason et al., 2018: 202). This model implies some identity development and personality self-expression through the engagement of youth in “creation, curation and circulation of information” (Gleason et al., 2018: 202). All above mentioned enables youth to establish their citizenship in virtual reality.

With the development of technology and rise of the Internet, educational programmes should aim to develop new student thinking since their early age as it will open up new world perspective (Terrones Rodríguez, 2018). Research in digital technologies and media education allows us to identify challenges and opportunities in virtual applications so as to let students expand their prospect, encourage their identities and enrich their learning experience (Davis, 2017).

In order to have a deeper understanding of how the modern world uses ICT in education, recent reviews and surveys aim to: 1) analyze statistical data of technology application in education worldwide; 2) debate on the role of ICT, models, principles, and methods of ICT applications to help establish student-centered pedagogy; 3) identify criteria for statistics collection and assess the ICT role and its impact on educational quality (Gibson et al., 2018; de Sousa, 2018).

It is crucial for media educators and their students to be aware of psychological effects of global information space, which they use to achieve their diverse aims, including their learning objectives. It is the space where they exist, act, communicate, contact with others and spend a great deal of free time.

The 1940-s saw the rise of research on the intensification of mass media impact on public minds and behavior that was largely based on the approaches of mass communication psychology. Furthermore, the rise of digital technologies, Internet accessibility, PCs, global mobile communications with their enormous opportunities have changed human psychological development and psychological functioning. That was reflected at the level of mass consciousness and at the level of personality awareness. The most evident changes, according to educational psychologists, may be seen in a childhood and adolescence (Feldstein, 2011; Postman, 1982). Study of these new phenomena can be impossible in the framework of paradigm of mass communications. In the search of new totally different approaches researchers lay a foundation to a completely new branch of science called media psychology that considers media mass communications as the process of mass thinking (Pronin, Pronina, 2013: 153). The problems listed

and studied by this science include: “balance of individual and collective mind, individual and mass consciousness, individual and mass unconsciousness, auto communication, (inner speech, self-conception, I-communication) and mass communication (broadcasting, we-conception, we-communications); the issues of personality identity stemmed from the globalizing world community and existing transformations of national identities; the issues of informational pollution and overuse individual’s mental resources; the issues of safety and security in mass communications, media psychological principles and methods to solving communicative problems and impediments” (Pronin, Pronina, 2013: 159; Pronina, 2011). On top of this, media psychology may be extrapolated to such research as media analysis, media therapy and media education. According to E.I Pronin and E.E. Pronina, the major objective of media education is to enhance adaptability and informational and psychological security of mass communication actors. All three areas of research are based on the ideas of “protectionists” (“injection, protection and vaccination”) theory of media education.

The researchers worldwide scrutinize the potential and efficiency of advanced computer technologies which enhance educational opportunities. In their research B. Cukurbasi and M. Kiyici prove that applications of ICT in case studies, PBL (problem-based learning) and Flipped class learning improve group interactions, develop the ability to take responsibilities, enhance class attractiveness and student motivation and encourage problem-solving capabilities (Cukurbasi, 2018).

Modern pedagogy and psychology provide a foundation for the most perspective research trend – attitude to a student as to an active individual who may independently organize his/her activities, who may be provided with the pedagogic guidance and advice. The importance of student learning pro-activeness is in the focal point of international researchers and is underpinned by research outcomes. Thus, in his research devoted to different learning styles, Twissell A. carried out close observations and semi-structured interviews in electronics class. Based on the research results, the author makes up his classification of cognitive profiles (the Operative, the Logician, the Programmer, the Dialectic) and concludes that learner’s active agency and applications of ICT enhance student’s understanding and provide effective learning (Twissell, 2018).

Broadly speaking, in S.L. Rubenstein opinion, “it is always an interaction between an actor and the external world” (Rubinstein, 2001: 33), “it is the activity of an actor aimed to change the world, to produce tangible and intangible products” (Rubinstein, 2001: 172), it is “a process, through which human being demonstrates his/her attitude to the external world, to other people, to objectives that s/he encounters in life” (Rubinstein, 2001: 34). Based on the activity theory, I.A. Fateeva implies by media activity, the activity of an actor, aiming to create and/or perceive media texts that are to be distributed via media (Fateeva, 2007: 25). According to this researcher, the theory of media activity should stem from the fact that media education as an educational process should be built up on the sequence of favorable conditions provided by educators to enable audiences to acquire following activities:

- adequate perception of media texts as a product of human activity, understanding mechanism of their production and reproduction, critical review and professional judgement about it;
- overt observations over mass media and communications in the society (both the system and its units), an insider point of view to provide mindful options and consumptions;
- dialogue in mass media via modern computer technology;
- media texts’ creation through participation in educational media projects of different scales (Fateeva, 2007: 34).

S.L. Rubenstein ideas lay a basis for designing diagnostics tools allowing to identification of student inclination to either destructive or constructive style of media use, and ability to solve problems of media security (Smirnov, Kopovoi, 2012).

In educational process media culture and media competency are indicated in the multifaceted development of an individual: emotional drive, motivation, communicative skills, intellect, critical thinking, abilities to self-development and self-realization etc. In modern research findings an individual as an actor of media education is viewed in the respect of individual’s technological capabilities (McLuhan, 2003; Florensky, 1993; Tkhostov, Emelin, 2010).

P.A. Florensky looked into technologies and their role in man embodiment: “how something inanimate may generate something animate” (Florensky, 1993: 143), trade tools continue into embodiment. According to M. McLuhan, technology is a continuation of a human body. Discussing the phenomenon of human extension V.A. Emelin points out that, in accordance with M. McLuhan, technologies effectively extend muscles capabilities of a man; intensify his senses and nervous

system. However, M. McLuhan did not expect that media would be a continuation of higher mental functions, building up new forms of thinking, memory, attention, and ways to meet the needs. M. McLuhan said, that transformations are of organic evolution nature as all technologies are the extension of our tangible reality (McLuhan, 2003: 207). The problem is what forms this techno-organic evolution will develop and what trajectory it will choose (Emelin, 2016).

Based on embodiment theory, there is a psychological theory of “probe testing”, developed by A. Tkhostov. The psychological theory of probe testing is understood as a universal mechanism of emergence and modification of human beings embodiment. From this theoretical angle, the key criteria outlining the boundaries of a human being are the experience of controlling over and belonging to something.

As A. Tkhostov and V. Emelin rightly notice: “A person, who has joined mobile connections, loses one of the security boundaries. In return, s/he gains some strange semi-penetrated space that belongs not only to him /her but to other individuals who knows his/her mobile number. This space shares the attributes of common communication body like homunculus of “incomplete authorship”, without a possibility to control subjectivity and with “the feeling of openness to others” and, finally, s/he lost a sense of normal security. This combination of inside and outside accessibility makes the core of self-identity unclear” (Tkhostov, Emelin, 2010).

Thus, all above raises the question of how individual’s boundaries and communicative activity are defined in modern media education.

4. Results

The results obtained and processed with SPSS and rating methods of MIG-TS-2 were analyzed and based on median scoring and standard deviation (Table 1).

The analysis demonstrated that those students who use Internet and other devices take the advantage of new opportunities. They tend to extend boundaries of reality while the threat to privacy is increasing. Some have become technological addicts.

We identified respondents whose indices, according to MIG-TS-2, exceeded $M+\sigma$ that is the evidence of changes in psychological boundaries in relation to an active use of the Internet. So as to have deeper understanding of which exactly changes of psychological boundaries happen to be observed in student active Internet users, the percentage of respondents, demonstrating high scoring in every MIG TS 2 rating scale, is shown in Figure 1.

In the scale of “Psychological dependence”: “impossibility of withdrawal” from a device, only 1.6 % of students in research sample indicated this criterion. This criterion is tested by the multiple choice of such statements: “I can’t imagine my life without Internet”, “If I don’t have the Internet access for a long time, I feel discomfort and start being nervous”. Thus it may be stated that these respondents are Internet-addicted, whose behavior is determined by overuse of Internet. “Subjective dependence” as hyper dependence is found in 17.8 % of respondents. We suggest that the problem of subjective dependence is closely linked to real problems of an individual who communicates in social nets, for example, low activity of communications.

Table 1. Median scoring of change in psychological boundaries (student sample) (MIG-TS)

Scales	<i>Internet</i>	
	Median scoring (M)	Standard deviation (σ)
<i>Psychological dependence</i>		
Impossibility of withdrawal	7.2	1.40
Subjective Dependence	7.32	2.23
<i>Change of psychological boundaries</i>		
Extending communication bounds	6.80	2.17
Reflection of bounds violation	9.15	1.98
Preferences to technology – easy to use	5.73	1.99
Preference to technology – opportunities	10.03	1.57
<i>Change in needs</i>		
Functionality/operation	10.73	1.29
Convenience	10.81	1.39
Image making	6.75	2.11

As M.J. Hoff demonstrates in her research (Hoff, 2016), trust as a personality trait is a major factor that determines participation, interaction, extension of communication boundaries and representation in digital spaces. Being the key prerequisite for the decision of a young person to participate in online spaces and collaborate in social nets, trust influences the attitude of an individual towards those within the space and the information in this space. According to the author, “Understanding how and why youth chose to engage/not engage in on-and offline spaces can enlighten and support educators’ use of online spaces and digital technology in more effective and relevant ways for the students within their classrooms” (Hoff, 2016: 94).

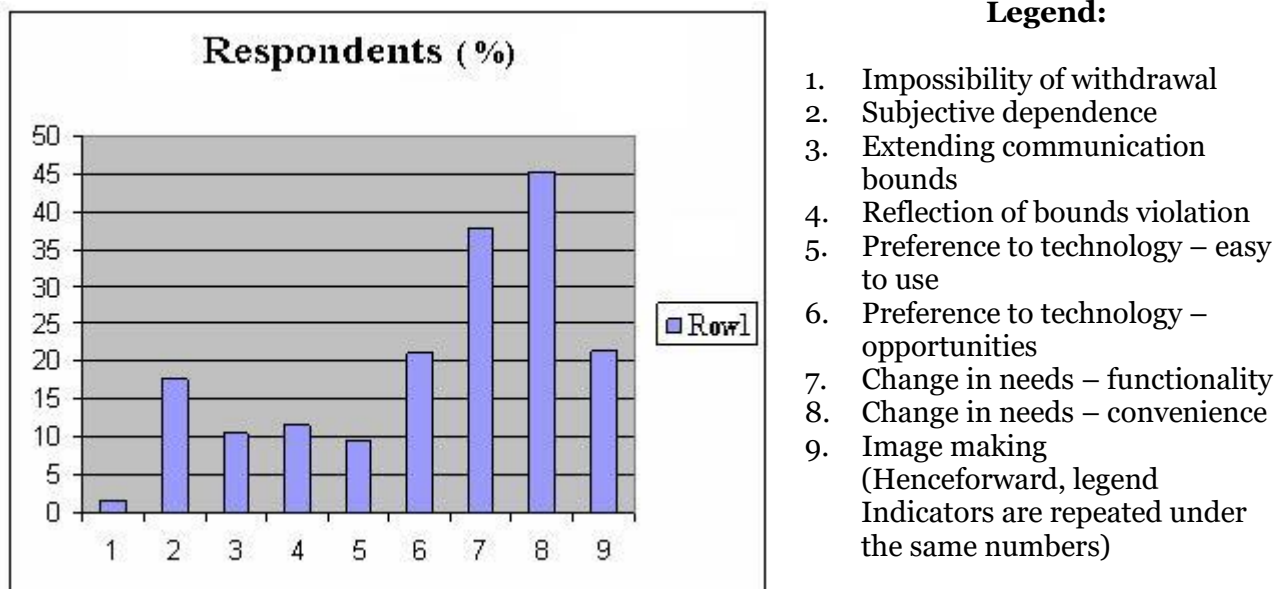


Fig. 1. Diagram of high scoring in student rating based on MIG TS 2 (n=439), (in %)

Findings obtained in the scale of “Change of psychological boundaries”: “extending communication bounds” include 10.7 % of respondents, that is - such participant is not pleased with such “openness” as this is a point of accessibility and intervention into personal space, violation of privacy, and open gate for manipulations in communications (Garfinkel, 2000: 204).

“Reflection of bounds violation” tends to appear in 11.6 % respondents. Clearly, one in ten of respondents is well aware of the psychological consequences of technological progress and demonstrates a negative response to the violation of own psychological boundaries, it stems from the Internet accessibility that leads to unlawful intervention into private life.

“Preference to technology – easy to use” was indicated by 9.5 % respondents. The subjective value of technical device is determined by the assumption that it is usable and it does not require a lot of efforts to work on. Thus one in ten students are in favor of activities that engage technical device and see these activities as easy and less emotionally exhausting ones. “Preferences to technology – opportunities” was shown by 21.2 % respondents. One in five prefers this technology because of the opportunities provided by it, including opportunities for meetings and acceptance of other viewpoints, opportunities of remaining anonymous in social nets, opportunities for simultaneous activities of “parallel” identity (simultaneously attending a lecture and communicate with favorites). Students take a chance of an access to a larger cluster of information and participate in conferences, chats and forums online. They may experience new feelings and emotions. In general, technologies create new opportunities and consequently, change goals and values; transform the structure of human activity.

The following findings were obtained in the frame of “Change of needs” scale: functionality – 37.8 % of respondents think that the most important quality of the Internet is provisions of additional functions. This means that they appreciate technical complexity and a number of additional functions/operations.

“Convenience” – 199 (45.3 %) respondents indicated that the subjective value of the Internet is convenience. V. Emelin, A. Tkhostov, E. Rasskazova stated that, due to the convenience some technologies have self-reinforcement: for example, interactivity in the educational process creates a

basis for expectations of fun in learning, availability of other participants, a desire to communicate for any reason and a need to be accessible themselves (Emelin et al., 2013).

According to the findings of the scale of “Image making”, 21.3 % of respondents show that Internet creates an additional value for them because it promotes an image making, indicates social status, and provides technology’s knowledge. One in five respondents feels the importance of having a cutting-the-edge device within a certain price category that reflects the vision of the device as part of human image and status. Essentially participants of the experiment constructed a new personality in virtual reality. The data obtained indicate the tendency of students’ adaptation to increasing flow of information. Our research results comply with the findings obtained by L.G. Antonova, A.A. Postnova, where the research sample were students from Yaroslavl, out of which the majority confessed that they experienced certain feeling of addiction to the Internet. It is a desire to switch on, check email, or stay in touch to “keep established links” (62 %). That definitely proves that the Internet space actively forms “user communicative tools of a linguistic personality”, which means that it requires permanent productive experiments with media information. And that becomes an everyday reality for most of them (Antonova, Postnova, 2014: 188).

The results of correlational analysis by Spearman correlation coefficient in MIG TS-2 (sample of students (n=439)) allow to identify salient interrelations between different indicators that seems pervasive in modifications of psychological boundaries (Figure 2).

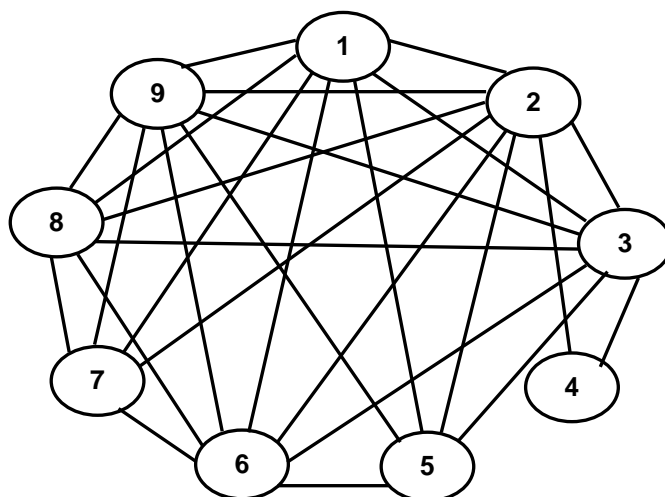


Fig. 2. Diagram of correlational relations between indicators by MIG TS-2 (Students, n=439) (for indicators see **fig.1** Legend)

The biggest number of links to other criteria is identified with variables of “impossibility of withdrawal”, “subjective dependence” and “extending communication bounds”. The least number of relations observed is with variable of “reflection of bounds violation”. “Reflection of bounds violation” is positively linked to the variables of “impossibility of withdrawal” ($r=0.094$, $p=0.048$), “subjective dependence” ($r=0.364$, $p=0.001$) and “extending communication bounds” ($r=0.167$, $p=0.001$), “functionality/operation” ($r=0.106$, $p=0.028$), “convenience” ($r=0.145$, $p=0.002$). Obviously students’ “subjective dependence” on technical devices (Internet) and extending bounds is inherent in the change of needs and intensified by them, it is accompanied by withdrawals symptoms – that is unpleasant memories and even somatic symptom disorders, in case of impossibility to use technology. With the intensifying this trend, it may end up in a conflict, that is – the conflict between Internet (technology) user and people around and the conflict between technology and other activities like studies and social life. We can inevitably observe internal conflict – intrapersonal conflict that is reflected in losing control. Intensifications of similar trends can be an evidence of student low media competency. “Reflection of bounds violation”, in its turn, is not correlated with student “image making” and their “preferences to technology – easy to use and opportunities”. We suggest that interim role between these two variables may be played by the specificity of student motivational dimension, cognitive incentives, self-expression and self-assertiveness etc. Close link between “reflection of bounds violation” and “subjective dependence”

indicates the fact that students consider technology most salient in their life, which makes a large impact on their thoughts and feelings and let them live up unpleasant life moments.

The second stage of our research covered 127 students out of general sample while we carried out correlational analysis between parameters of “psychological boundaries” and “communicative activity” (Figure 3). Understanding relations between these two parameters allows media educators to create a collaborative environment so as to help student development in media education.

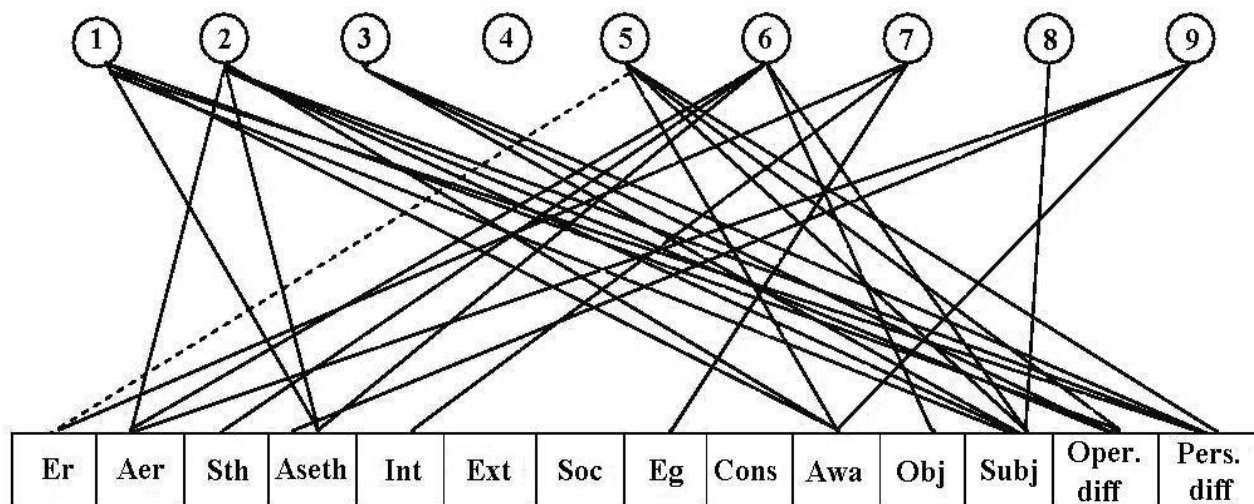


Fig. 3. Diagram of correlations between parameters of MIG TS-2 and Test of Judgements by A.I. Krupnov

Codes: Er – Ergicity; Aer – Anergicity; Sth – Sthenia; Aseth – Asthenia; Int – Internality; Ext– Externality; Soc – Socio-centricity; Eg – Egocentricity; Cons – Consciousness; Awa – Awareness; Obj – Objectness; Subj – Subjectivity; Oper.diff – Operational difficulties; Pers.diff – Personal difficulties (for numbers see Fig.1. Legend indicators)

What we can mean by communicative activity (CA) is that it is a full and integral picture of student individual modifications which take place in use of technology. Communicative activity allows us to consider personal modifications of a student as an actor of mass communications in modern media space which is interactive by nature.

On the one hand, interrelations of participants in the communication process become multifaceted, as each user acts both as an addressee and sender; a number of links increases endlessly. In contrast, we can observe an emergence of new areas of a personal existence, which either decreases or develops direct interpersonal communication and communicative activity of students.

As you can see from the diagram the most number of correlations of communicative activity is identified with a variable “subjective dependence”. It is correlated with “anergicity” ($r=0.266$, $p=0.003$), “asthenia” ($r=0.177$, $p=0.046$), “awareness” ($r=0.390$, $p=0.001$), “subjectivity” ($r=0.303$, $p=0.001$), “operational difficulties” ($r=0.336$, $p=0.001$) and “personal difficulties” ($r=0.320$, $p=0.001$). “Extending communication bounds” is correlated to “awareness” ($r=0.458$, $p=0.001$), “subjectivity” ($r=0.371$, $p=0.001$), “operational difficulties” ($r=0.393$, $p=0.001$) and “personal difficulties” ($r=0.331$, $p=0.001$). “Reflection of bounds violation” shows no relations with any of the parameters of communicative activity. “Preference to technology – easy to use” and «Preference to technology – opportunities” are related to different variables of communicative activity. The first one is negatively correlated to “ergicity” ($r= - 0.183$, $p=0.040$), and positively linked to “awareness” ($r=0.211$, $p=0.017$), “subjectivity” ($r=0.226$, $p=0.011$), “operational difficulties” ($r=0.265$, $p=0.003$) and “personal difficulties” ($r=0.257$, $p=0.004$). The second indicator is “preferences to technologies – opportunities” which is positively linked to “anergicity” ($r=0.176$, $p=0.048$), “sthenia” ($r=0.224$, $p=0.011$), “asthenia” ($r=0.185$, $p=0.037$), “objectness” ($r=0.176$, $p=0.048$) and “subjectivity” ($r=0.285$, $p=0.001$). Indicators of MIG TS - 2, making up the scale of “change of needs”, are also specifically related to communicative activity. “Change of needs – functionality” is correlated to

“ergicity” ($r=0.184$, $p=0.039$), “internality” ($r=0.235$, $p=0.008$), “egocentricity” ($r=0.209$, $p=0.018$), “change of needs – convenience” is correlated to “subjectivity” ($r=0.201$, $p=0.023$), “image making is related to “anergicity” ($r=0.231$, $p=0.009$), “aesthesia” ($r=0.205$, $p=0.021$), “awareness” ($r=0.229$, $p=0.011$).

The data obtained prove that at the age of information and communication technologies, transformations of individual’s boundaries are affected by changes in their communicative activity reflected in their direct interrelations (“teacher-student”, “student-student”), whereas “reflection of bounds violation” makes no impact on communicative activity and its modifications. “Impossibility of withdrawal” and “subjective dependence” are dominated by asthenic emotions in communications, it is subjectivity-oriented, (opinions, experience of counterparts). It is also marked by communication, bounds violation, underdevelopment and ‘personal impediments to communication such as anxiety, inadequate self-esteem etc. As a result of Internet-based activities, extending communication bounds is affected by communicative difficulties that is linked to personal attributes of a student and instrumental side of communication, and is intensified by subject-oriented contacts. The research data prove the fact that image-making for Internet users is possible while they have egocentric motivation for communication, internal controlling of their communicative activity and striving to regulate a narrow circle of personal contacts. It may be stated that this trend of image-making is positive as a student takes an advantage of Internet-based new opportunities for self-presentation and promotion, i.e. focus on associative links and life experience.

We suggest that alongside with Internet-addiction and transformation of psychological boundaries Internet has huge potential for a personality’s development – it develops the ability to plan user activity, and create image, provides an opportunity to realize cognitive needs and potential and enhances the reflection salience.

5. Conclusion

The research results allow us to identify particular transformations of personality bounds of those students who actively use Internet. The awareness of the trends outlines further potential of student media education and the work of media educators and university faculty and staff. It is accepted that a constructive dialogue between a teacher and a student can be possible when teachers themselves acquire media culture and are competent about the issues of student identity transformations. Furthermore they should be skillful in creating appropriate communication environment. With this in mind, educational institutions may provide retraining courses “Basics of media psychology and media pedagogy” and “The development of student media culture” for the university staff. It aims to enhance professional level of university faculty and staff. As I. Nevleva and T. Sererezhko point out, increasing amount of data demonstrates that social media plays a significant role in communication and relationship management, interpersonal relations, creative collaborations, studies and personality development. Experiential research shows that network communities may provide a basis for practices in pedagogy to help develop collaborative thinking, tolerance, critical thinking and acquisition of decentralized models (Nevleva, Seryozhko, 2017). Teachers and students can communicate in the net while taking into account ethics of their relations with “others” (Levinas, 1979), that certainly include those outside the room, i.e. their “friends” in the net (Merchant, 2011).

With the view of all this, we suggest that:

- monitoring student use of modern technology is salient in educational institutions;
- set of psychological and pedagogical measures should be developed to prevent students from psychological Internet addiction. On the other hand, it is essential to enable them to acquire new technologies while taking into consideration motivational, communicative and cognitive dimensions of an individual. It matters, in particular,

- a) to introduce interactive methods in educational process (trainings, discussions etc.) that allow students to discuss issues of media theory and practices, hear other view points and visions, develop communicative competences and abilities to take responsibility and stand for their position;

- b) to train students to express themselves via media techniques and technologies.

While applying media in educational process, a teacher should take into account new attitudes which are established and exposed by media and directly transferred into student communicative activity that, consequently, enhances the importance of reflection.

Further research may be extrapolated to age-related and gender studies where it may aim to identify student personality boundaries and communicative activity as well as psychological comfort of an individual. Psychological and pedagogic advisory service is one of the prioritized educational areas that enable students to develop media competency, accept values of media space, and maintain their integrity and the personality development in the multitasking information environment.

References

- [Antonova, Postnova, 2014](#) – Antonova, L.G., Postnova, A.A. (2014). Communication Skills and Media Literacy of the Humanist Student. *Yaroslavl Pedagogical Bulletin*, 4(1): 185–188.
- [Chugh, 2018](#) – Chugh, R., Ruhi, U. (2018). Social media in higher education: A literature review of Facebook. *Education and Information Technologies*, 23(2): 605–616.
- [Cukurbasi, 2018](#) – Cukurbasi, B., Kiyici, M. (2018). High School Students' Views on the PBL Activities Supported via Flipped Classroom and LEGO Practices. *Educational Technology & Society*, 21 (2): 46–61.
- [Davis, 2017](#) – Davis, K., Ambrose, A., Orand, M. (2017). Identity and agency in school and afterschool settings: Investigating digital media's supporting role. *Digital Culture & Education (DCE)*, 9(1): 31–47.
- [de Sousa, 2018](#) – de Sousa, G.R., Borges, E.M. (2018). Long distance education, ICT and formation of pedagogy teachers: a case study from the medias-education. *Revista tempos e espacos educacao*, 11(24): 187–200.
- [Emelin et al., 2013](#) – Emelin, V.A., Tkhostov, A.Sh., Rasskazova, E.I. (2012). Psychological factors of development and chronicity of technological addictions. *Psychological Science and Education*, 1: 171–180.
- [Emelin, 2016](#) – Emelin, V.A. (2016). Technology as a factor of identity transformation: development of Homo technologies. *National Psychological Journal*, 1 (21): 9–18. DOI: 10.11621/npj.2016.0102
- [Fateeva, 2007](#) – Fateeva, I.A. (2007). Media Education: Theoretical Foundations and Practice of Realization. Chelyabinsk: Chelyabinsk State University, 270 p.
- [FCC, 2009](#) – Federal Communications Commission (2009) In the Matter of Empowering Parents and Protecting Children in an Evolving Media Landscape. Commission. [Electronic resource]. URL: <http://www.medialiteracy.com>
- [Fedorov, 2009](#) – Fedorov, A.V. (2009). Media education: yesterday and today. Moscow: Information for All, 234 p.
- [Fedorov, 2014](#) – Fedorov, A.V. (2014). Glossary of terms on media education, media pedagogy, media literacy, media competence. Moscow: Information for all, 64 p.
- [Fedorov, 2015](#) – Fedorov, A.V. (2015). Media Education: history and theory. Moscow: Information for All, 450 p.
- [Fedorov, Levitskaya, 2015](#) – Fedorov, A., Levitskaya, A. (2015). The Framework of Media Education and Media Criticism in the Contemporary World: The Opinion of International Experts. *Comunicar*, 45(23): 107–115. DOI: 10.3916/C45-2015-11
- [Feldstein, 2011](#) – Feldstein, D.I. (2011). A Changing Child in Changing World: Psychological and Educational Problems of the New School. *Psychology in Russia: State of the Art*, 4: 383–396. DOI: 10.11621/pir.2011.0026
- [Florensky, 1993](#) – Florensky, P.A. (1993). Organoprojection: Russian kosmism: anthology of philosophical ideas. Moscow: Pedagogy-Press: 149–162.
- [Garfinkel, 2000](#) – Garfinkel, S. (2000). Database Nation: The Death of Privacy in the 21st Century. USA: O'Reilly, Sebastopol, 312 p.
- [Gibson et al., 2018](#) – Gibson, D., Broadley, T., Downie, J., Wallet, P. (2018). Evolving Learning Paradigms: Re-Setting Baselines and Collection Methods of Information and Communication Technology in Education Statistics. *Educational Technology & Society*, 21 (2): 62–73.
- [Gleason et al., 2018](#) – Gleason, B., Gillern, S. (2018). Digital Citizenship with Social Media: Participatory Practices of Teaching and Learning in Secondary Education. *Educational Technology & Society*, 21 (1): 200–212.
- [Hoff, 2016](#) – Hoff, M. (2016). “I don't converse with those I don't know”: The role of trust/distrust in online engagement. *Digital Culture & Education (DCE)*, 8(2): 90–106.

- How..., 2009 – How technology changes everything (and nothing) in psychology (2009): 2008 annual report of the PA Policy and Planning Board: *American Psychologist*, 64 (5): 454–463.
- Krupnov, 2007 – Krupnov, A.I. (2007). System Diagnostics and Sociability Correction. Moscow: Russian University of Nations' Friendship, 131 p.
- Levinas, 1969 – Levinas, E. (1969) Totality and Infinity: An Essay on Exteriority. Dordrecht, Boston, London: Kluwert Academic Publishers, 307 p.
- Lukjanenko, 2017 – Lukjanenko, A.A. (2017). Social-cultural problems of virtual technologies' development. Proceedings of the XIX International Conference. Tyumen: 160–164.
- McLuhan, 2003 – McLuhan, M. (2003). Understanding media: external extending of an individual. Moscow: Kanon-Press, 232 p.
- Merchant, 2011 – Merchant, G. (2011) Unravelling the social network: theory and research. *Learning. Media and Technology*, 37(1): 4-19. DOI: 10.1080/17439884.2011.567992
- Nevleva, Seryozhko, 2017 – Nevleva, I.M., Seryozhko, T.A. (2017). Paradigm and ethical problems of communication with students in modern media space. *Scientific bulletins of the Belgorod State University. Series: Philosophy. Sociology. Law*, 10 (259): 68–79.
- Postman, 1982 – Postman, N. (1982). Disappearance of Childhood. N.Y.: Delacorte Press, 177 p.
- Pronin, Pronina, 2013 – Pronin, E.I., Pronina, E.E. (2013). Media Psychology and Human Phenomenon. *Social Sciences and Contemporary World*, 2: 151–161.
- Pronina, 2011 – Pronina, E.E. (2011). Media Psychology categories: facts, phenomena, hantom: Man as an actor and object of media psychology. Moscow: Moscow State University: 105–150.
- Rasskazova et al., 2015 – Rasskazova, E.I., Emelin, V.A., Tkhostov, A.Sh. (2015). Diagnostics of psychological consequences of information technologies' impact on a human being. Moscow: Akropol, 115 p.
- Rubinstein, 2001 – Rubinstein, S.L. (2001). Basics of general psychology. St.Petersburg: Peter, 720 p.
- Smirnov, Kopovoi, 2012 – Smirnov, V.M., Kopovoy, A.S. (2012). Psychology of media-security. Saratov: Saratovsky Istochnik, 93 p.
- Terrones Rodríguez, 2018 – Terrones Rodríguez, Luis, A. (2018). Pensamiento dominante, educación y medios de comunicación. *Sophia: colección de Filosofía de la Educación*, 24(1): 313–336. <https://dx.doi.org/10.17163/soph.n24.2018.10>. <https://dx.doi.org/10.17163/soph.n24.2018.10>
- Tkhostov, Emelin, 2010 – Tkhostov, A.Sh., Emelin, V.A. (2010). From Tamagotchi to the virtual collar: the boundaries of technology neutrality. *Psychological Studies*, 6 (14): 15–23.
- Twissell, 2018 – Twissell, A. (2018). Modelling and Simulating Electronics Knowledge: Conceptual Understandin and Learning through Active Agency. *Educational Technology & Society*, 21 (2): 111–123.
- Usova, 2014 – Usova, M.V. (2014). Network as a marker of modern society: socio-philosophical aspect. *The Bulletin of the Volga Region Institute of Administration*, 2: 125–131.
- Vasyura, 2008 – Vasyura, S.A. (2008). Psychology of male and female communicative activity. *Spanish Journal of Psychology*, 11(1): 289–300.