Online Activities of Students Living in a Metropolis under the Pandemic

Yekaterina Kargapolova^a, Yulia Davydova^a, Natalya Denisenkova^a, Natalya Akimova^a

^a Russian Plekhanov University of Economics, Stremyanny Pereulok, 36, Moscow, 115093, Russia

Abstract

Our study aims to analyze online activities of student community in a metropolis during the COVID-19 pandemic. We focused our research attention on frequency and purposes of Internet visits by students while learning remotely. The paper provides findings obtained through two waves of the sociological survey carried out in Moscow in 2019 and 2020. Using a questionnaire method we surveyed students of Moscow universities in March 2019 (N=1240 respondents) and in April 2020 (N=410). We fixed growth in the use of desktop computers by student users. We found that the number of Internet visits for communication purposes remained almost the same as it had been before the pandemic. Remarkably, the number of work related requests increased significantly, while the growth in searches for learning resources was not as impressive as we had expected in view of the overall shift to distance learning. Thus, we concluded that the e-learning shift did not cause significant transformations of the higher education system.

Keywords ¹

Online activities, student community, metropolis, pandemic.

1. Introduction

The COVID-19 pandemic can be viewed from the perspective of a grandiose social experiment whose effects are yet to understand. Rapid transformation of routine activities under the lockdown challenges humanitarian values and principles. The pandemic revealed new economic, spiritual and social aspects of polarization in the society. However, there is no agreement about how to respond to these challenges. On the one hand, in case of external threats individuals tend to solidarize with their counterparts [20], which facilitates spiritual development. On the other hand, people tend to increasingly suffer from psychic stresses and catastrophic thinking imposed by media spreading unprecedented panic among population [3, 13]. Apart from that, the pandemic served as a violence and crime catalyst [18].

The COVID-19 pandemic challenged the global higher education system [8, p. 5.]. The pandemic tested both the student community as a particular socio-demographic group and an individual student assigned to a particular social class. More than 90% of the global student community transferred to distance learning.

Importantly, students are particularly vulnerable to damaging effects of the cyberspace for several reasons. One thing is that shaping of their value system is still incomplete, another is that they have not attained their own stable social status, while their parents' experience proves irrelevant when it comes to current challenges. But all the same, students are active agents of social relations and they will shape the future of the country [4]. Basically, students are best-educated young adults. It is

ORCID: 0000-0002-2892-3953 (Yekaterina Kargapolova); 0000-0001-5660-328X (Yulia Davydova); 0000-0003-4795-7662 (Natalya Denisenkova); 0000-0002-9868-7159 (Natalya Akimova)



 ^{© 2020} Copyright for this paper by its authors. Use permitted under Creative Commons License Attribution 4.0 International (CC BY 4.0).

SLET-2020: International Scientific Conference on Innovative Approaches to the Application of Digital Technologies in Education, November 12-13, 2020, Stavropol, Russia

EMAIL: k474671@list.ru (Yekaterina Kargapolova); ylkadav@mail.ru (Yulia Davydova); natalya652008@yandex.ru (Natalya Denisenkova); na-akimova@mail.ru (Natalya Akimova)

CEUR Workshop Proceedings (CEUR-WS.org)

students who «have lent impetus to the adoption, consumption, appropriation and production of media content and technologies» [14]. Students promote electronic technologies and translate e-culture from an expert level of knowledge into a language of basic users. It is students that are shaping the elite whose competences will adequately satisfy social demands during the sixth technological wave of innovation. Students are also extremely sensitive to all transformations related to social interaction in the cyberspace.

Taking into account the world's turbulence that is growing even stronger during the pandemic, we find it rather challenging to unambiguously evaluate online activities of modern students. It requires an integrity analysis based on empirical study using sociological monitoring. Thus, the focus must be on those transformations of students' online activities that can cause changes in their social behavior and value system.

Moscow accumulates the country's best universities and thus Moscow students can be viewed as the vanguard of the overall student community. Undoubtedly, students make up the most dynamic part of the young generation. Online environment in a capital city (metropolis) is rather diverse and thus it easily adopts innovations that will be accessible to the province only with time. Online activities of Moscow students serve as an indicator of overall changes in online environment during the pandemic.

2. Purpose and objectives of the research

Based on the results of our sociological survey we aim to study and evaluate transformations of students' online activities. We surveyed Moscow students, i.e. young adults who live and study in a metropolis.

3. Literature review

Before the pandemic a number of studies already discussed the options for proper organization of distance learning. In the situation where educators were increasingly shifting their courses online, students' digital literacy became a crucial skill both for socialization and for obtaining their academic degree [12]. Online education carves a niche beyond its conventional application. Even before the pandemic university students as a distinct social group often got involved in new technologies testing [10, 16], (e.g. Massive Open Online Courses) [11]. Therefore, there is an opinion that distance learning will soon become another growth area alongside online trading, courier delivery services and online banking [5, p. 44].

Before the pandemic researchers already emphasized that ICT was unable to ensure relevant and efficient learning outcomes though it can give rise to new forms of interaction between teachers and students. "It is not technology but teaching goals and strategies that must guide the educational process. Students should not only know how to use ICT, but also be aware why they benefit from it" [10]. Notably, we now have free access to a great number of educational resources and we can easily exchange them online, which inevitably results in increasing plagiarism threatening the quality of education. "Many students are fully aware of clear cases of plagiarism, yet they tend to deny plagiarism in more complicated cases such as borrowings by agreement and reuse of their own work or the one of their friend's" [15].

The pandemic apparently revealed risks of distance learning, i.e. lack of incentives and loss of intrinsic value of knowledge. Risks related to goal-setting stem from two conflicting approaches. Obviously, digital economy has a steady demand for a creative person... while universities do not adequately develop students' creativity. There are risks leading to unification and simplification of education. Distance learning can cause alienation from learning as it eliminates the need for self-change. In this case, the logic of teaching is substituted for the logic of delivering services, the logic of development is substituted for the logic of consumption, the logic of an intellectual effort is substituted for the logic of satisfaction [7]. In order to be able to confront all those risks you need to acquire "critical digital literacy" [17, 19]. It becomes a necessary skill for social adaptation in view of the increasing expansion of the Internet. The latter constitutes mainly helpful though sometimes

quaint and even hostile terrain. As the researchers argued before the pandemic, it is necessary to develop moral values and foster reflectivity (awareness) [2, 6].

4. Methodology

Under the guidance of Kargapolov S.V. we carried out a sociological survey "Electronic culture of university students". The first phase took place in May 2014 with the number of respondents 750, the second phase took place in October-November 2018 (N = 1 128). We surveyed students from Astrakhan, Volgograd and Moscow using a questionnaire method. We arranged another survey for Moscow students in March 2019 (N=1240) and in April-May 2020 (N=410) when universities shifted to distance learning. The authors of this article took part in the field study, the study lead provided access to the survey data. The benchmark survey didn't aim at representative sampling; the findings can be applied only to the aggregate data of the survey or used as a reference source. Nevertheless, the number of the respondents enables to make valid conclusions and suggest hypotheses. We performed data processing and analysis using SPSS 17.0. In order to accomplish the research aim we questioned Moscow students how often they go online and what purposes they pursue. We also asked whether they have an experience in setting up electronic resources. We then carried out a comparative analysis of the survey data obtained in 2019 when the situation was relatively stable and the survey data of 2020 when students experienced turbulence under the pandemic and overall shift to remote learning. We share our findings in this article.

5. Results

The analysis of the survey results (Table 1) showed that during the pandemic students used the Internet, cell phones and social networks more often than they had done before but the increase was insignificant (within the margin of error), which can result from the fact that in 2019 the number of Internet and cell phone users among young adults almost reached boundary values. Internet communication via different messengers did not change dramatically either, though this might have been expected under the lockdown. The same is with public services sites – the pandemic did not cause a dramatic increase in searches on these sites. The pandemic accelerated the demand for a wellequipped home office space, which is likely to affect the frequency of computer uses. It should be noted that previously young adults used their PCs not as often as internet-connected cell phones [9].

Table 1

The answers of Moscow students to the question "How often did you use these devices last year?" (% of the respondents who answered "once a day or more often")

Answers	2019	2020
Computer	52,8	68,0
The Internet	94,0	97,1
Cell phone / smart phone	94,6	97,9
Social networks	92,2	95,9
Electronic government sites (public services, traffic police, etc.)	7,7	7,9
Communication via messengers and other services (Skype, WhatsApp and other		62,3
messengers)	59,1	

The survey data analysis gave rise to the assumption that students' purposes of online searches can have a hierarchical structure (Table 2). Most of the students use the Internet for communication. During the pandemic the number of respondents who used the world wide web for this purpose and did it "once a day or more often" marginally increased (by 4,6%). The second popular purpose is the Internet search for information. It is followed by less popular purposes, those are searches "for leisure" and "for pleasure". The number of such answers increased during the

pandemic – searches for leisure increased within the margin of error, while those for pleasure went up 4,8%.

We have already noted that the Internet is becoming the space for the second-rate entertainment [9]. The number of respondents who use the Internet for this sort of entertainment is still high, yet the dynamics is not as impressive as we could have expected in view of the lockdown when people were restricted or cut off from all sorts of mass offline events.

Table 2

The answers of Moscow students to the question "How often do you use the Internet and what are your purposes?" (% of the respondents who answered "once a day or more often")

Answers	2019	2020
For work	45,6	66,8
For revision before classes	63,7	71,6
For information	84,3	86,6
For professional development	36,6	32,9
For leisure	80,5	83,8
For communication	89,8	94,5
For electronic payments and online purchases	33,5	27,2
For creative work (science, literature, arts)	23,2	25,5
For pleasure	74,3	79,0
For research work	26,3	22,7
For financial investment	15,4	12,9
For communicating my ideas	23,2	21,7

Discussion

The number of respondents who regularly use the Internet "for revision before classes" increased by 7,9%. Thus, there is some growth in the response rate, though it is not as big as it was expected taking into account the overall shift to distance learning. For various reasons many students (28,4%) do not use the Internet for homework assignments every day in spite of the shift to distance learning during the lockdown. Remarkably, the corresponding response rate across Astrakhan universities achieved 69,8% in 2014 when offline learning prevailed. This rate is almost the same as the one for the students of top-ranked Moscow universities during the lockdown when distance learning took over.

Previously we fixed the decrease in the response rate under question for students from Astrakhan and Volgograd. The response rate in Astrakhan fell from 69,8% in 2014 to 60,3% in 2018, in Volgograd it fell from 79% to 71,4% over the same period [9]. The negative dynamics brings up some questions. Is it the increasing degradation of higher education that we should worry about? Can the cyberspace become an efficient learning environment of its own? The overall shift to distance learning did not facilitate much a better performance in this environment.

Remarkably, the response rate remained the same among those students who use the Internet for creative and research work (every fourth of the respondents). We should remind that the Federal Education Standards included R&D in the list of mandatory competences for Bachelors and Masters. We revealed a significant increase (by 21,2%) in the number of respondents who use the Internet "for work", which requires a further thorough study. We assume that this trend can indicate either a long-awaited capitalization of digital competences or an increasing demand for part-time jobs taking into account a rapid drop in young adults' incomes. The decrease in other response rates supports our assumption. The number of respondents who use the Internet "for professional development" dropped from 36,6% to 32,9%. The number of those who use the Internet "for electronic payments and purchases" also dropped by 6,3% though we could have expected increase in online purchases during the lockdown. The number of respondents who use the Internet "for investment" reduced within the margin of error. This option ranks lowest in the hierarchy of students' purposes of the Internet use.

6. Conclusion

Taking into account the findings of the survey, we can conclude that educators did not suggest any breakthrough digital technologies during the pandemic. Basically, almost all social spheres, including education, implemented digital solutions that were previously available. Top-ranked Internet corporations used the content developed for mass consumption, while the situation of the lockdown apparently set other challenges and the first one was building up efficient social interaction. Volodenkov S.V. argues that currently "we can only observe the intensification of ICT flows with no trace of a shift to a whole new level of the social structure, yet digitalization must go alongside this shift" [1, 43-44].

Obviously, education lags behind rapid digital transformations, which is caused not only by red tape, but also by insufficient funding for modernization. Appropriate work placement means strong collaborative involvement of employers who, in turn, often find it difficult to clearly formulate the demanded competences.

Digitalization challenges universities to development of their own digital learning platforms adapted to the curricular. However, the overall shift to distance learning showed that not all universities were able to handle the platforms available for e-learning, not to mention the development of their own digital tools. Kramarenko S.N. argues that "currently, in 2020 the education system and the teaching community are facing the challenges" related to the assumption that "education is still lagging behind" [1, 47-48]. Therefore, this lag sets barriers to capitalization of students' digital competences and prevents from adequate adaptation to the fast-changing environment.

7. References

- [1] Abramov A.V., Bagdasaryan V.E., Byshok S.O., Volodenkov S.V., Efstafiev D.G., Egorov V.G., Komleva N.A., Kramarenko N.S., Manoylo A.V., Michailyonok O.M., Petrenko A.I., Prokofiev V.F. The pandemic COVID-19: the end of the world we got used to? // The Herald of Moscow State Regional University. 2020. №2. Pp. 3-8.
- Barbuti N. From Digital Cultural Heritage to Digital Culture: Evolution in Digital Humanities DTUC '18: Proceedings of the 1st International Conference on Digital Tools & Uses Congress. 1-3. October 2018. DOI. 10.1145/3240117.3240142.
- [3] Buryak V.V. The pandemic COVID-19, information panic and post-virus economy. Benefitor. 2020. №77. C. 35-39. https://www.elibrary.ru/item.asp?id=43122587
- [4] Dulina N.V., Kargapolova E.V., Strizoe A.L. Young people in modernization processes: assessment of the state of affairs (case study of Southern federal district regions). Economic and Social Changes: Facts, Trends, Forecast. 2017. T. 10. N.2. T. P. 130-149. DOI: 10.15838/esc.2017.2.50.7.
- [5] Fayzieva G.U. The pandemic COVID-19 and new trends in the global and regional development. The expert of the year – 2020. Collected papers of the IX International research contest. Penza, "Science and Enlightment". 2020. Pp. 43-47. https://www.elibrary.ru/item.asp?id=43309588
- [6] Ferreira C. Sociology and Digital Culture. International Journal of Social Science Studies. DOI: 10.11114/ijsss.v7i3.4221. International Journal of Social Science Studies. 2019. Vol. 7, No. 3; May 2019. https://www.researchgate.net/publication/332566534 Sociology and Digital Culture.
- [7] Ibragimov G.I., Ibragimova Ye. M. The pandemic COVID-19: challenges for higher education.
- Personal and professional development of future professionals within a research and educational cluster. Collected papers of the 14th International conference. Kazan. Publishing house "School". 2020. Pp. 15-21. https://www.elibrary.ru/item.asp?id=43687807
- [8] Ivanov D.O., Aleksandrovich Yu.S., Oryol V.I., Esaulenko Ye.V., Novak K.E., Ditkovskaya L.V., Basina V.V. The pandemic of coronavirus: a challenge for medical education and the response. Pediatrician. 2020. Vol. 11. №3. Pp. 5-12.

- [9] Kargapolova E.V., Kargapolov S.V., Davydova Ju.A., Dulina N.V. Information competences of young people within digitalization of society. Economic and Social Changes: Facts, Trends, Forecast. 2020. T. 13. № 3. C. 193-210. DOI: 10.15838/esc.2020.3.69.13.
- [10] Kirkwood A., Price L. Learners and learning in the twenty-first century: what do we know about students' attitudes towards and experiences of information and communication technologies that will help us design courses? Studies in Higher Education. Vol. 30, No. 3, June 2005, pp. 257-274.
- [11] Knox J. Digital culture clash: «massive» education in the E-learning and Digital Cultures MOOC Distance Education, 2014 Vol. 35, No. 2, 164-177. DOI: 10.1080/01587919.2014.917704.
- [12] Koshkin A.P., Novikov A.V. Social capital of students and faculty as a resource for improving the quality of education. Espacios. 2018. T. 39. № 23. C. 23. https://www.elibrary.ru/item.asp?id=35094854.
- [13] Lepyoshkin S.A. The pandemic as a factor shaping catastrophic thinking. Science in a metropolis. 2020. №7(23). P. 30. https://www.elibrary.ru/item.asp?id=43826060.
- [14] Lim S. (Ed.), Soriano C. (Ed.), Thussu D. Asian Perspectives on Digital Culture. New York: Routledge, 2016. DOI: 10.4324/9781315731650. Chapter 1 A (digital) giant awakens – Invigorating media studies with Asian perspectives.
- [15] Palmer A., Oakley G., Pegrum M.A culture of sharing: transnational higher education students' views on plagiarism in the digital era. Management in Education, 2017, Vol. 11, No. 4, pp. 381-404.
- [16] Perrotta C., Bailey Ch., Garside C. Culture, technology and local networks: towards a sociology of 'making' in education, Cambridge Journal of Education. Volume 48, 2018. Issue 5. Pp. 553-569. DOI: 10.1080/0305764X.2017.1375459.
- [17] Saman T. Social media pedagogy: Applying an interdisciplinary approach to teach multimodal critical digital literacy. E-Learning and Digital Media, Vol 15, Issue 2, 2018. DOI: 10.1177/2042753018756904.
- [18] Shikula I.R. The pandemic of coronavirus as a crime catalyst in the Russian society. Advanced topics criminal and criminal procedure law. Collected papers of the Chair of Criminal Legal Sciences. Moscow State Pedagogical University. Moscow. 2020. Saratov. Publishing house "Saratov source". Pp. 68-70. https://www.elibrary.ru/item.asp?id=43775806.
- [19] Tabachuk N. P., Ledovskikh I. A., Shulika N.A., Kazinets V.A., Polichka A. E. Internet Activity and Internet Addiction: Where is the Borderline in Developing One's Information Competency? Eurasia Journal of Mathematics, Science and Technology Education, 2018, 14(12).
- [20] Vachshtein V.S. Pandemic, fear, solidarity of Russia in the global policy. 2020. Vol. 18. №3(103). Pp. 155-162. https://www.elibrary.ru/item.asp?id=43116171
- [21] Abramov A.V., Bagdasarjan V.Je., Byshok S.O., Volodenkov S.V., Evstaf'ev D.G., Egorov V.G., Komleva N.A., Kramarenko N.S., Manojlo A.V., Mihajljonok O.M., Petrenko A.I., Prokof'ev V.F. Pandemija COVID-19: konec privychnogo mira? Vestnik Moskovskogo gosudarstvennogo oblastnogo universiteta. 2020. № 2. Pp. 3-83. DOI: 10.18384/2224-0209-2020-2-1001.
- [22] Burjak V.V. Pandemija COVID-19, infopanika i post-virusnaja jekonomika. Beneficiar. 2020. №77. Pp. 35-39. https://www.elibrary.ru/item.asp?id=43122587.
- [23] Vahshtajn V. S. Pandemija, strah, solidarnost' Rossija v global'noj politike. 2020. T. 18. №3(103). Pp. 155-162. https://www.elibrary.ru/item.asp?id=43116171
- [24] Ibragimov G.I., Ibragimova E.M. Pandemija koronavirusa COVIN 19: vyzovy sisteme vysshego obrazovanija. Professional'no-lichnostnoe razvitie budushhih specialistov v srede nauchno-obrazovatel'nogo klastera. Materialy 14-oj Mezhdunarodnoj nauchno-prakticheskoj konferencii. Kazan': Redakcionno-izdatel'skij centr "Shkola", 2020. P. 15-21. https://www.elibrary.ru/item.asp?id=43687807.
- [25] Ivanov D.O. Aleksandrovich Ju.S., Orel V.I., Jesaulenko E.V., Novak K.E., Ditkovskaja L.V.,
- [26] Basina V.V. Pandemija koronavirusnoj infekcii: vyzov vysshemu medicinskomu obrazovaniju i reagirovanie. Pediatr. 2020. T. 11. №3. Pp. 5-12. DOI: 10.17816/PED1135-12.
- [27] Lepeshkin S.A. Pandemija kak faktor formirovanija katastroficheskogo soznanija. Science in a megapolis. 2020. №7(23). p. 30. https://www.elibrary.ru/item.asp?id=43826060.
- [28] Fajzieva G.U. Pandemija COVID-19 i novye trendy mirovogo i regional'nogo razvitija. Jekspert goda 2020. Sbornik statej IX Mezhdunarodnogo nauchno-issledovatel'skogo konkursa. Penza

«Nauka i Prosveshhenie» (IP Guljaev G.Ju.), 2020. S. 43-47. https://www.elibrary.ru/item.asp?id=43309588.

[29] Shikula I.R. Pandemija koronavirusa – katalizator prestupnosti v rossijskom obshhestve. Aktual'nye problemy ugolovnogo i ugolovno-processual'nogo prava: sovremennoe sostojanie i perspektivy razvitija. Nauchnye trudy. Sbornik nauchnyh trudov kafedry ugolovno-pravovyh disciplin Instituta prava i upravlenija MGPU. Moskva, 2020. Saratov: Izdatel'stvo "Saratovskij istochnik», 2020. Pp. 68-70. https://www.elibrary.ru/item.asp?id=43775806.