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COMMUNICATION OF INFORMATION SERVICES OF MARTYNAS MAŽVYDAS NATIONAL LIBRARY OF LITHUANIA IN SOCIAL MEDIA

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Abstract: Information society currently means digital transformation and organizational change. The Martynas Mažvydas National Library of Lithuania (further – National Library) as an organization has come through various changes – the information services provided here today become more complex and user-friendly in technological environment. In the context of the organization evolution and growth information services as Creativity workshops, cinema, TV studio productions, meeting hubs, co-workers' spaces, educational, project activities and others broaden the concept. The aim of the research is to analyze the communication of information services of National Library in social media during the pandemic and afterwards period in 2020-2023. The communication and shared knowledge are seen as the key tool for the implementation of the aim of the strategic activities in the Strategic Action Plan of the National Library.

Keywords: communication, Information services, information society, National Library, social media

Introduction

Constructive participation and the development of democracy depend on satisfactory education as well as on free and unlimited access to knowledge, thought, culture and information[1]. The global context of the current period in 2023 includes Russia-Ukraine war, Corona virus pandemic period in 2020-2021 including two quarantine periods and digital transformation issues for the European Union (EU) membership agreements among member states.

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[1] IFLA-UNESCO Public Library Manifesto 2022. International Federation of Library Associations and Institutions [online], 2022. Available from: https://repository.ifla.org/bitstream/123456789/2006/1/IFLA-UNESCO%20Public%20Library%20Manifesto%202022.pdf

Fig. 1. Transformational Policy Focus
Global Digital Regulatory Outlook 2023: Policy and regulation to spur digital
transformation. International Telecommunication Union. ITU, 2023, p. 4.
Available from: https://www.itu.int/dms_pub/itu-d/opb/pref/D-PREF-BB.REG_OUT01-
2023-PDF-E.pdf

Knowledge based economy via transformation processes includes the definition of Information services as information society services which means services usually provided for remuneration by electronic means and at a distance at the individual request of a recipient of an information society service[2], accordingly, it is remarkable to state the "new normal" as a case of the institutional transformational change in National Library.

The mission of the National Library is to be a Lithuanian knowledge space that creates value for society – the integration of transformational processes, information services and the communication are well seen in social media as the leadership of international projects and social initiatives. The governance of such projects leads to employees' core competencies, skills, and remarkable leadership for as declared statement of the National Library as a "Library of People". The research results presented in the study of transversal competencies of National Library team leads[3] declares that the organizational competence most efficiently

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[2] Information society services. Information Society Development Committee [online], 2023. Available from: https://ivpk.lrv.lt/lt/veiklos-sritys-1/informacines-visuomenes-paslaugos-1

[3] JOKŪBAUSKIENĖ, S. Digital transformation challenge of transversal competencies of information society: the case of the National Library of Lithuania. In: VALKANOVA, V.; MIHAILOV, N. (eds.). Communication and Media of the 21[-st] century: educational and professional challenges. Sofia: Faculty of Journalism and Mass Communication, Sofia University "St. Kliment Ohridski", 2023, pp. 160-168.

is created by the following parts: 1) effective problem solving 2) collaboration 3) responsibility 4) focus on objectives 5) teamwork 6) creativity. Regarding the way, the insight of repetitive importance of analytical and creative thinking, focus on objectives, working with others: empathy and active listening while lifelong learning continues should be noted of top 10 skills in 2023 declared in World Economic Forum Future of Jobs Report (2023).

Fig. 2. Top 10 skills of 2023
Future of Jobs Report 2023: INSIGHT REPORT MAY 2023.
Geneva: World Economic Forum, 2023.
Available from: https://www.weforum.org/publications/the-future-of-jobs-report-2023

Results

The United Nations has recognized culture as a causal agent of sustainability and integrated it into the Sustainable Development goals[4]. The National Library itself keeps the culture in general via its information services alive for active participation of citizens. The young generation is grown up with social media and emerging technologies. The communication of the National Library in social media is remarkable and active.

The main research question is stated: How National Library communicate its information services in social media?

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[4] ARIRIGUZOH, S. Communication competencies, culture and SDGs: effective processes to cross-cultural communication. In: Humanit Soc Sci Commun, 2022, vol. 9, 96. DOI: https://doi.org/10.1057/s41599-022-01109-4

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The aim of the research is to investigate how National Library communicates its information services in social media in pandemic and current period and what insights may be formed based on communication dimensions and activity theory.

The main three tasks of research are as follows:

1. To analyze communication and activity theories and its context.

2. According Activity theory&communication dimensions identify main categories of communication of information services of the National Library in social network Facebook.

3. To explore the official National Library Profile posts in social network Facebook in 2020-2023.

The main theoretical background is based on communication&activity theories positioning the keywords described in the Figure 3 and includes communication usage, understanding the context of information services, parts of activity theory and communication dimensions.
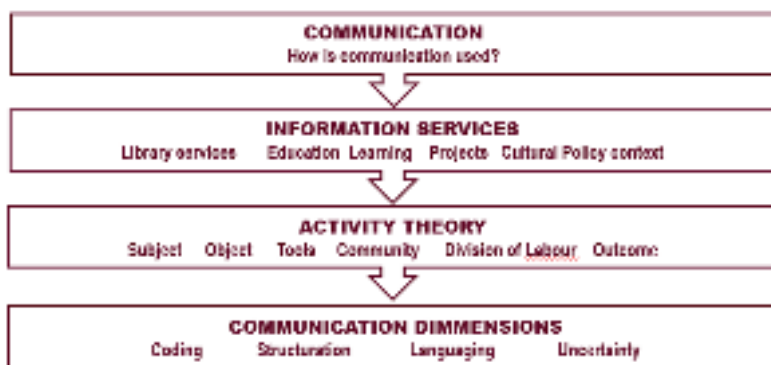
Fig. 3. Main concepts of the research

Communication & Information services. Communication is a process of generating, transmitting, receiving, and interpreting messages in interpersonal, group, public and mass audience contexts through written and verbal formats[5], social media (e.g., Facebook, Twitter) is one of the cheapest and most effective ways to promote library activities. It is a free channel to communicate informa-

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[5] ONYESOM, Moses; Onyesom, Anthonia Ewere. Dimensions of Communication in the 21st Century Organizations: A Conceptual Review. – In: Journal of Language and Communication, 2015, vol. 2, no 1, p. 8.

tion pertaining to book signings, art exhibits, book clubs, meetings, new books, and so much more[6].

The smart library information service must be a smart bookstore that integrates the functions of the current information system with the knowledge-based SL learning system in terms of generating innovative human resources[7]. Although information services are a vital part of any Grid software infrastructure, providing fundamental mechanisms for discovery and monitoring, and hence for planning and adapting application behavior[8], which case should reflect to the National Library's project management via blockchain technologies and the main results sharing.

Information services usually includes lending books and other materials as sources of information, maintaining institutional and community information listings, conserving, and digitizing organizational and local heritage collections, and setting up and running websites and intranets supporting the host organization, the local community or even local government services[9]. The National Library concept widens the notion that transforms to various performative activities, meetings, hubs, maker spaces and so on. In the way to communicate properly the information services there should be effective communication cycle as in Figure 4, within the Ideation, Transmission phases by the role of sender's activity[10].

[6] SUMADEVI, S.; KUMBAR, M. Use of social media to Promote Library Services in the Digital Age. In: Social Media and Libraries. Mysore: Mahajana Tourism Development Institute, Department of Library, 2019. Available from: https://www.researchgate.net/publication/337673976_Use_of_Social_Media_to_Promote_Library_Services_in_the_Digital_Age

[7] SU, Xiao; CHEN, Nan. Intelligent Information Service System of Smart Library Based on Virtual Reality and Eye Movement Technology. In: Scientific Programming, 2022, vol. 2022, Article ID 9174756. DOI: https://doi.org/10.1155/2022/9174756

[8] CZAJKOWSKI, K.; FITZGERALD, S.; FOSTER, I.; KESSELMAN, C. Grid information services for distributed resource sharing. In: Proceedings 10th IEEE International Symposium on High Performance Distributed Computing. San Francisco: IEEE, 2001, pp. 181-194. DOI: https://doi.org/10.1109/HPDC.2001.945188

[9] CHOWDHURY, G.; BURTON, P.; MCMENEMY, D.; POULTER, A. Information organization and access. In: Librarianship: An Introduction, Facet, 2007, pp. 85-88. DOI: https://doi.org/10.29085/9781856049146.013

[10] ONYESOM, Moses; Onyesom, Anthonia Ewere. Dimensions of Communication in the 21st Century Organizations: A Conceptual Review. – In: Journal of Language and Communication, 2015, vol. 2, no 1, p. 10.
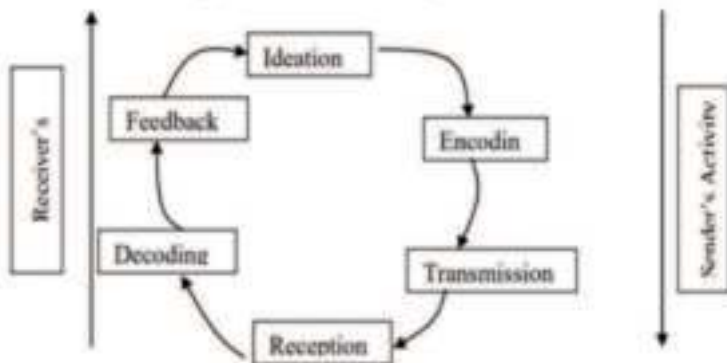
Fig. 4. Communication cycle
ONYESOM, Moses; Onyesom, Anthonia Ewere. Dimensions of Communication in
the 21st Century Organizations: A Conceptual Review. In: Journal of Language and
Communication, 2015, vol. 2, no 1, p. 10.

The communication channel selected for the current research is based on classical Shannon's Communication system described in Figure 5 (Pan et al. 2021). The information provided in social media channel describes the actions the National Library has made in the period of 2020-2023.
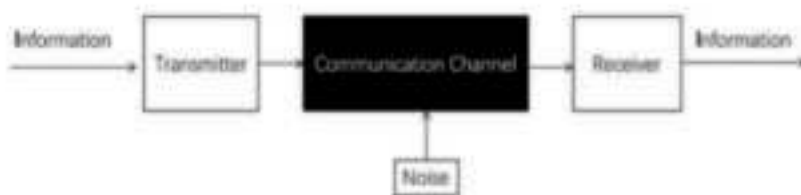

Fig. 5. Communication model
(Pan et al. 2021)

Activity theory & Communication dimmensions. In communication theory, a communication channel is defined as the medium through which the information is transmitted from the signal source to the receiver (Shannon and Weaver, 1963

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in Pan et al. 2021). The medium comes into construction of three communication dimensions as described in Figure 6: coding, languaging and structuration[11].
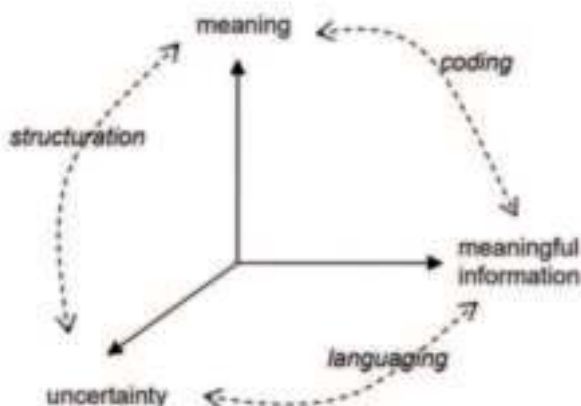

Fig. 6. Three dimensions of communication
Leydesdorff, L. Luhmann Reconsidered: Steps Towards an Empirical Research Programme in the Sociology of Communication?. In: GRANT, Colin (ed.). Beyond Universal Pragmatics: Essays in the Philosophy of Communication. Oxford: Peter Lang, 2009, p. 18. Available from: https://www.researchgate.net/publication/45882642_Luhmann_Reconsidered_Steps_Towards_an_Empirical_Research_Programme_in_the_Sociology_of_Communication

Activity theory model comes from its fundamental view of purposeful activity in a cultural historical context as the fundamental unit for the study of human behavior[12]. Integrated activity model within integration of before mentioned communication dimensions where subject is coding, languaging and fills in the structure of shareable information and knowledge constructs the case adapted Engeström's Expended Activity Theory Model[13] shown in the Figure 7. The most

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[11] LEYDESDORFF, L. Luhmann Reconsidered: Steps Towards an Empirical Research Programme in the Sociology of Communication?. In: GRANT, Colin (ed.). Beyond Universal Pragmatics: Essays in the Philosophy of Communication. Oxford: Peter Lang, 2009, p. 18. Available from: https://www.researchgate.net/publication/45882642_Luhmann_Reconsidered_Steps_Towards_an_Empirical_Research_Programme_in_the_Sociology_of_Communication

[12] HASHIM, N. H.; JONES, M. L. Activity Theory: A framework for qualitative analysis 2007. In: 4th International Qualitative Research Convention (QRC), 3-5 September, 2007, PJ Hilton, Malaysia. QRAM, 2008. Available from: http://ro.uow.edu.au/commpapers/408

[13] HASHIM, N. H.; JONES, M. L. Activity Theory: A framework for qualitative analysis 2007. In: 4th International Qualitative Research Convention (QRC), 3-5 September, 2007, PJ Hilton, Malaysia. QRAM, 2008. Available from: http://ro.uow.edu.au/commpapers/408

important issue is that the information services create value via outcomes as well as there are used suitable instruments&activities and regular guidelines to relate community of visitors, readers and users.
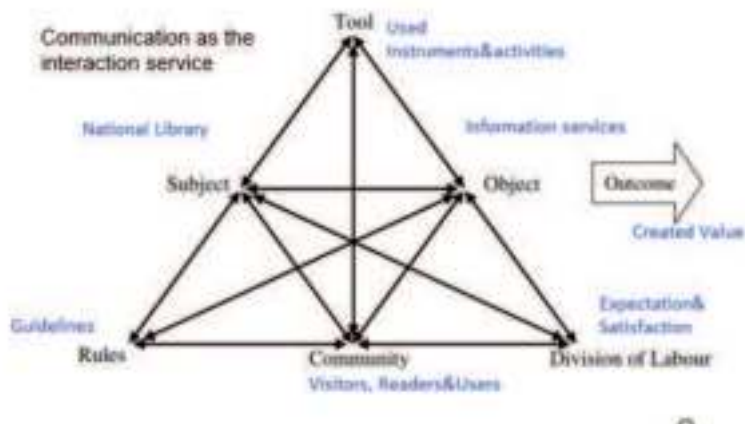

Fig. 7. Engeström's Expended Activity Theory Model adapted by the author
HASHIM, N. H.; JONES, M. L. Activity Theory: A framework for qualitative analysis 2007. In: 4th International Qualitative Research Convention (QRC), 3-5 September, 2007, PJ Hilton, Malaysia. QRAM, 2008. Available from: http://ro.uow.edu.au/ commpapers/408

The public library in general is the local center of information, making all kinds of knowledge and information readily available to its users. It is an essential component of organizational change in knowledge societies, continuously adapting to new means of communication to fulfil their mandate of providing universal access to and enabling meaningful use of information for all people. It provides publicly accessible space to produce knowledge, sharing and exchange of information and culture, and promotion of civic engagement[14], which means involving participation in a society life and covers The National library vision and mission "to serve as a space for knowledge that creates value for Lithuanian society" (Figure 8).

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[14] IFLA-UNESCO Public Library Manifesto 2022. International Federation of Library Associations and Institutions [online], 2022, p. 1. Available from: https://repository.ifla.org/ bitstream/123456789/2006/1/IFLA-UNESCO%20Public%20Library%20Manifesto%202022. pdf

Fig. 8. Strategy and priorities of National Library of Lithuania 2021-2023

The design of the research is followed of the main statements.

- How the National Library communicate information services via pandemic crises and afterwards in social network Facebook?
- The aim of the research is to investigate the communication of information services of National Library in Facebook during the pandemic period in 2020-2023.
- Communication dimensions organizes the Communication of Information services activity as digital enablers and digital transformation actors of information society.

Method: qualitative content analysis of in total 2045 posts of Public Profile of the National Library in Facebook, Qualitative content analysis of Official Public Report from National Library, analysis of the Strategy of National Library of Lithuania 2021-2023.

Period of the research: 2020-2023. The tool for qualitative content analysis used: Dedoose Version 9.0.107, cloud application for managing, analyzing, and presenting qualitative and mixed method research data (2023). Los Angeles, CA: SocioCultural Research Consultants, LLC www.dedoose.com.

The research consists of three groups analyzed and described below in table No.1.

Table 1. The research objectives

(A1)	(A2)	(A3)
Contains two quarantine periods and release between Public posts texts in official institutional FB profile Period: March 13th, 2020 – June 28th, 2021 N=1388 153 pages	Contains Current situation. Public posts texts in official institutional FB profile Period: June 19th, 2023 – October 18th, 2023 N=501 121 pages	Contains Monitoring of media Official public Report from National Library Public posts texts in official institutional FB page Official public Report from National Library Period: March 13th, 2020 – June 28th, 2021 N=156 51 pages

The illustration of the research design stated in Figure 9. The coding system is aligned with communication dimensions described in paragraph of theoretical background. The generation of meaningful information declared as codes follows uncertainty and meaning surroundings.

Fig. 9. Research design

The research categories were selected by the qualified review by the author analyzing communication messages in the before mentioned groups A1, A2, A3. The description of coding and code cloud are shown in Figures 10 and 11.

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Fig. 10. Research categories and description

Fig. 11. Code cloud

Basically, all library services are information services[15]. Qualitative content analysis is characterized by the interpretation and evaluation of concepts, the reliability of qualitative content analysis is usually associated with the object of research and the competence of the researcher, i.e., how the processes of summarizing the results correspond to the object of the study.

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[15] CHATTERJEE, Amitabha. Chapter Z – Recent Trends in IOD. In: CHATTERJEE, Amitabha (ed.). Elements of Information Organization and Dissemination. Chandos Publishing, 2017, pp. 527-556. DOI: https://doi.org/10.1016/B978-0-08-102025-8.00026-0

The new generation policy narratives have reframed the institutional activities afterwards corona virus pandemic and created the growth of technologies usage in information services electronic environment which enabled the success of e. Services in the "new normal", shifting focus back to people and long-term development[16]. The increasing degree of complexity of global processes in the digital society turns into digital complexity in communication area and the control of its content largely determines the efficiency of management of institutional leadership.

The coding categories show the variety of information spread in social media, particularly in Facebook institutional profile. The period of 2020-2023 consists of the total amount of codes indicated is 1390, the largest amount counted in the group A1, which refers to the number of 798 entities. The number is explainable because of analyzed group period: March 13th, 2020 – June 28 th, 2021 and included two quarantine periods and release between. The most expressed categories are *services, quarantine, books, discussion, projects, occasions, and events*. The expression of categories is shown in the Figure 12. And the Table of codes counting is seen in the Figure 13.
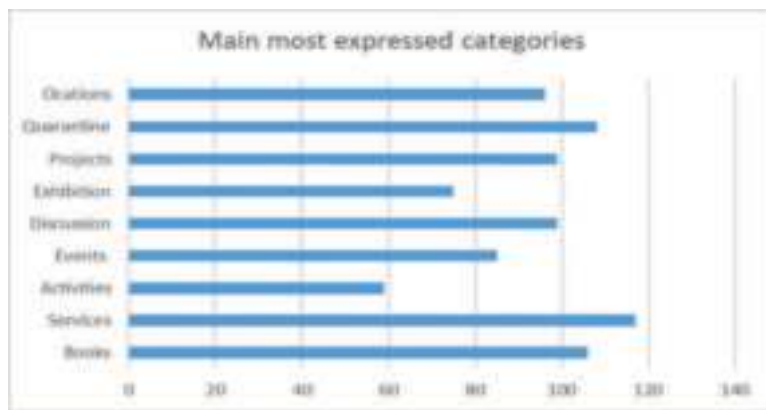

Figure 12. Main most expressed categories

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[16] Global Digital Regulatory Outlook 2023: Policy and regulation to spur digital transformation. International Telecommunication Union. ITU, 2023. Available from: https://www.itu.int/dms_pub/itu-d/opb/pref/D-PREF-BB.REG_OUT01-2023-PDF-E.pdf

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Fig. 13. The table of codes counting

The results are confirmed by the supportive statements of all three research groups and indicated the number of activities of all twelve categories from all three groups (Table 2).

Table 2. A1, A2, A3 group statements corresponding categories

Activity theory	Category	Supportive Statements
	Activities	"M. Straupytė, the cultural activities manager of Kaunas Vincas Kudirka Public Library, is happy that the second quarantine due to the coronavirus is much easier for the library – the library did not close, it issues books to readers, approximately 10% of them are issued during the quarantine. more than in previous years." (A3)
	Books	"It is reported that two years ago, in celebration of the centenary of the restoration of the state of Lithuania, the Government launched the "Century gift to the world" initiative. […]. This initiative received great support from Lithuanian communities. This year – for the third time – almost 2,000 Lithuanian books are again traveling to various countries around the world." (A3)
	Cinema	"The 2010 screening of the film was held at the National Library. Screening of the film "Andrei Sakharov – a free man" by Ukrainian director Yosif Pasternak." (A1)

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	Collaboration	"Director General of the Lithuanian National Martynas Mažvydas Library prof. Dr. Renaldas Gudauskas and the director of the Vilnius Institute of Political Analysis (VPAI) Virginija Būdienė signed a cooperation agreement" (A1)
	Creativity workshop: Educational activities	"Storytelling workshops, orientation game "Elephant", readings of summer stories and creative workshops were organized in Palanga's summer reading room." (A1) "It is reported that the libraries will transfer more than 3 thousand new computers to schools to help them improve their distance education process. According to the EU program, the Lithuanian National Martynas Mažvydas Library (LNB) has bought about 3.1 thousand stationary computers, about 2.4 thousand computers have already been delivered to libraries." (A3)
	Digital resources & content	"Aidas Sinkevičius, Deputy Director General of the National Library for Infrastructure, spoke about the new strategic project "eKultūra" (eCulture Portal – unified digital preservation and wider access to cultural resources)." (A2)
	Events: Conferences, Discussions and other	"Book publishing specialists gathered at the National Library – the Publishers' Forum was held, a remote event organized for the first time, the purpose of which is to invite Lithuanian publishers to discuss current topics" (A1)
	Exhibitions: Photography, Transferable, Virtual	"About the 5th conference in Birštonas dedicated to the topic of reading therapy. The number of participants and speakers was limited due to the safety regulations of the COVID-19 pandemic, but the live broadcast of the event was able to be watched by more listeners" (A3)

	Projects	"On September 2-3, the training base of the Lithuanian National Martynas Mažvydas Library hosted a discussion on the initiative of making trench candles for Ukrainian soldiers, in which the employees of the Creative Workshop Department of the National Library, which implemented the project, as well as project partners and representatives of volunteers participated." (A2) "It is written that the public library of Panevėžys while participating in the project "Connected Lithuania" has, trained more than 600 residents of the district in digital literacy before the quarantine. After switching to distance learning, information is published on the website, residents continue to actively participate in training. The project is implemented by the Information Society Development Committee, "Window to the Future", Communications Regulatory Authority, National Martynas Mažvydas Library, Ministry of the Interior." (A3)
	Quarantine: distance activities	"Birštonas Public Library contributed to the initiative of the Lithuanian National M. Mažvydas Library and "Robotics School" to print frames (holders) for protective shields for safe medical work with a 3D printer." (A3)
	Reading: Publishing	"Taking part in the Summer with a Book reading challenge, but having trouble deciding which books to read to complete the challenge tasks?" (A1) "I. Mitunevičiūtė, director of the Children's and Youth Literature Department of the National Martynas Mažvydas Library, and R. Elijošaitytė-Kaikarė, executive director of the Lithuanian Publishers' Association, who joined the social initiative "MaMaDu" about why children should be introduced to their first book in infancy, and the fact that reading voice for children up to 3 years old, according to scientists, is one of the cheapest and best-paying investments in their future." (A3)

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	Vilnius 700th Birthday	"Vilnius is celebrating its 700th anniversary here. Almost every Lithuanian knows the legend about the founding of Vilnius. You can find this and more mythical stories about Vilnius in the book exhibition "Legends and gifts of Vilnius" prepared by the National Library of Lithuania." (A2)

Discussion

As the insight of the research may be seen that new services appear in quarantine: virtual assistant for researchers, scanned copies of documents may be sent to the user by request and etc. Also, it should be stated that 54 Public Libraries contributed to the initiative of the National Library and "Robotics School" to print frames (holders) for protective shields for safe medical work with a 3D printer.

As well the next statement should be clear that the second quarantine has gone out with almost no attention to the health safety conditions as information about masks, or non-working period during the before mentioned situation. The variety of collaboration and partners in Lithuania and abroad gives valuable position for the National Library in the country and abroad. The National Library has shown its leadership and innovative services supply in the right way and in appropriate time. Social network in particularly Facebook becomes right communication channel while transferring and sharing the contextual text messages and images. Collaboration and institutional communication keep the National Library relevant and attractive, full of events, discussions, exhibitions, festivals, and books. The continuous transformation of books hubs leads to actual topics of past and future.

The ideation of communication processes[17] of National Library is done with creativity, flexibility, analytical thinking regarding the core skills of 2023[18]. As well it is important to mention relevance of current life in 2023, recent year the National Library by its communication touches the theme of the year of the 700th Birthday of Vilnius city.

And in general, it should be evaluated as well that the National Library as a parliamentary library implements its functions by becoming the space for mas-

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[17] ONYESOM, Moses; Onyesom, Anthonia Ewere. Dimensions of Communication in the 21st Century Organizations: A Conceptual Review. – In: Journal of Language and Communication, 2015, vol. 2, no 1, pp. 7-20.

[18] FUTURE of Jobs Report 2023: INSIGHT REPORT MAY 2023. Geneva: World Economic Forum, 2023. Available from: https://www.weforum.org/publications/the-future-of-jobs-report-2023.

tering national and international events, political debates & forums, projects for people and become "Library of People", so called by its Director General Prof. Dr. Renaldas Gudauskas.
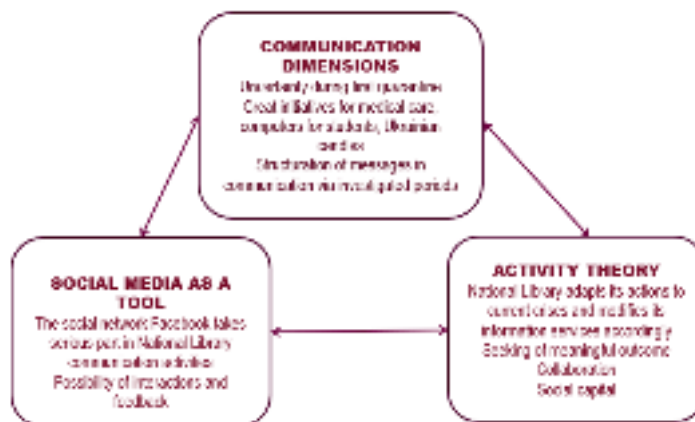

Fig. 14. Insights of the interpretation of research results

Conclusion

The communication of information services of National Library in social network is active, creative, by purpose & meaningful information. The transformation of information services and Library as a conceptual framework might be used by adapted Activity theory model[19] & Communication dimensions[20].

The information about activities&services in social network is concentrated, continuous, structured. Although the themes of communication in social network varies from information messages about safety instructions & avaliable online resources in quarantine to books delivery events, international occasions, Vilnius 700th birthday, reading clubs meetings in nowadays. Remarkable the second quarantine with no safety instructions and any information about virus but concentration to the transformed activities area as presentation of remote infor-

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[19] HASHIM, N. H.; JONES, M. L. Activity Theory: A framework for qualitative analysis 2007. In: 4th International Qualitative Research Convention (QRC), 3-5 September, 2007, PJ Hilton, Malaysia. QRAM, 2008. Available from: http://ro.uow.edu.au/commpapers/408

[20] LEYDESDORFF, L. Luhmann Reconsidered: Steps Towards an Empirical Research Programme in the Sociology of Communication?. In: GRANT, Colin (ed.). Beyond Universal Pragmatics: Essays in the Philosophy of Communication. Oxford: Peter Lang, 2009. Available from: https://www.researchgate.net/publication/45882642_Luhmann_Reconsidered_Steps_Towards_an_Empirical_Research_Programme_in_the_Sociology_of_Communication

mation services & e. Services. The case communication is used to coordinate the activities to achieve institutional goals[21].

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Information Society Services. Information Society Development Committee [online], 2023. Available from: https://ivpk.lrv.lt/lt/veiklos-sritys-1/informacines-visuomenes-paslaugos-1

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