Cloud technologies for enhancing communication of ITprofessionals

Svitlana V. Symonenko^{1[0000-0003-0599-3999]}, Viacheslav V. Osadchyi^{2[0000-0001-5659-4774]}, Svitlana O. Sysoieva^{3[0000-0003-2499-732X]}, Kateryna P. Osadcha^{2[0000-0003-0653-6423]} and Albert A. Azaryan^{4[0000-0003-0892-8332]}

> ¹ Dmytro Motornyi Tavria State Agrotechnological University, 18 Bogdan Khmelnitsky Ave., Melitopol, 72312, Ukraine svitlana.symonenko@tsatu.edu.ua

> ² Bogdan Khmelnitsky Melitopol State Pedagogical University,

20 Hetmanska Str., Melitopol, 72300, Ukraine

poliform550gmail.com, okp0mdpu.org.ua

³ National Academy of Educational Sciences of Ukraine,

52a Sichovykh Striltsiv Str., Kyiv, 04053, Ukraine

s.sysoieva@kubg.edu.ua

² Kryvyi Rih National University, 11 Vitalii Matusevych Str., Kryvyi Rih, 50027, Ukraine azaryan325@gmail.com

Abstract. The paper deals with the urgent problem of enabling better communication of IT-specialists in their business and interpersonal interaction using information and communication technologies, including cloud technologies. It is emphasized, that effective communication is an integral part of the successful professional work of IT-professionals, but in recent years it has undergone significant transformations, which have been expressed in new forms and means of communication, its content changes, its complications and volume increases, the need to improve its accuracy, and the level of understanding for a wide range of people. Certain peculiarities of communication in the ITenvironment have been discussed. It is noted that typical forms of communication in the IT-environment are synchronous and asynchronous ones. The authors insist that during their professional career IT-specialists communicate in the professional community from a variety of positions and common types of task formulation can be expressed through verbal or symbolic communication means. Due to the specifics of their professional activities, IT-professionals often need to communicate using synchronous communication (chats, video chats, audio chats, instant messaging) and asynchronous communication (email, forums, comments) tools, hence there is a demand to teach corresponding communication skills at universities. Certain practical examples of teaching communication skills using modern technologies are given. Advantages of cloud technologies for better communication within a company or an educational institution are presented. Microsoft Office 365 services, which can be successfully used to enable better communication and collaboration within a company or an educational institution are analyzed.

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

product etc. The possible disadvantages of cloud technologies for communication are the decrease of personal contact because of prevailed non-verbal interaction, the loss of meaning or simply misunderstanding between interlocutors, the slow choice of better decisions because of large number of different opinions on the topic which is being discussed etc.

	File storage	File sharing	Joint work	Private communication	Public communication	Videoconferenci ng	Conducting surveys, polls, voting
One Drive for Business	+	+	+				
SharePoint Online	+	+	+				
Microsoft Teams	+	+	+	+	+	+	+
Yammer	+	+		+	+		+
Skype for Business				+	+	+	+
Outlook		+		+	+	+	

Table 1. Features of Microsoft Office 365 services

5 Conclusions

Cloud technologies are definitely recent innovations which can significantly improve communication and collaboration within a company or a team. Numerous cloud developments can foster better relationships within a team, they change the way people communicate, making it possible to hold meetings and sessions, share documents and files, and connect using messaging platforms. Introduction of cloud technologies into the learning process at universities can enhance better communication and collaboration between students and teachers while studying general and professional disciplines, working on the project, and developing a software product. The prospects for future research can be the following ones: development of the methodology of cloud computing application for improving communication of IT-professionals at higher educational institutions and experimental examination of the methodology effectiveness.

References

- 1. Ala-Mutka, K.: Learning in informal online networks and communities. Publications Office of the European Union, Luxembourg (2010). doi:10.2791/36566
- Allied Telecom: How the Cloud Can Improve Business Communications, https://www.alliedtelecom.net/cloud-can-improve-business-communications/ (2015). Accessed 21 Mar 2016

- Boyd, D.M., Ellison, N.B.: Social Network Sites: Definition, History, and Scholarship. Journal of Computer-Mediated Communication 13(1), 210–230 (2007). doi:10.1111/j.1083-6101.2007.00393.x
- Gonzalez, D.: Teaching and learning through chat: A taxonomy of educational chat for EFL/ESL. Teaching English with Technology 3(4), 57–69 (2003)
- Koniukhov, S., Osadcha, K.: Implementation of education for sustainable development principles in the training of future software engineers. In: Semerikov, S., Chukharev, S., Sakhno, S., Striuk, A., Osadchyi, V., Solovieva, V., Vakaliuk, T., Nechypurenko, P., Bondarenko, O., Danylchuk, H. (eds.) The International Conference on Sustainable Futures: Environmental, Technological, Social and Economic Matters (ICSF 2020). Kryvyi Rih, Ukraine, May 20-22, 2020. E3S Web of Conferences 166, 10035 (2020). doi:10.1051/e3sconf/202016610035
- Kurhanov, D.O., Azaryan, A.A.: Software development to minimize time costs and increase productivity in the area of communication services. In: Kiv, A.E., Semerikov, S.O., Soloviev, V.N., Striuk, A.M. (eds.) Proceedings of the 1st Student Workshop on Computer Science & Software Engineering (CS&SE@SW 2018), Kryvyi Rih, Ukraine, November 30, 2018. CEUR Workshop Proceedings 2292, 116–127. http://ceur-ws.org/Vol-2292/paper13.pdf (2018). Accessed 31 Dec 2018
- Lavenda, D.: Don't Know Which Microsoft Collaboration Tool to Use? You're Not Alone, https://www.cmswire.com/digital-workplace/dont-know-which-microsoft-collaborationtool-to-use-youre-not-alone/ (2017). Accessed 25 Oct 2019
- Markova, O.M., Semerikov, S.O., Striuk, A.M., Shalatska, H.M., Nechypurenko, P.P., Tron, V.V.: Implementation of cloud service models in training of future information technology specialists. In: Kiv, A.E., Soloviev, V.N. (eds.) Proceedings of the 6th Workshop on Cloud Technologies in Education (CTE 2018), Kryvyi Rih, Ukraine, December 21, 2018. CEUR Workshop Proceedings **2433**, 499–515. http://ceur-ws.org/Vol-2433/paper34.pdf (2019). Accessed 10 Sep 2019
- Microsoft: Chat, Meetings, Calling, Collaboration | Microsoft Teams. https://www.microsoft.com/en-us/microsoft-365/microsoft-teams/group-chat-software (2020). Accessed 21 Mar 2020
- Microsoft: OneDrive for Business online file sharing and cloud backup. https://www.microsoft.com/en-us/microsoft-365/onedrive/onedrive-for-business (2020). Accessed 21 Mar 2020
- 11.Microsoft:SharePoint,TeamCollaborationSoftwareTools.https://www.microsoft.com/en-us/microsoft-365/sharepoint/collaboration(2020).(2020).Accessed 21 Mar 2020
- 12. Microsoft: Skype for business with security and control of Microsoft. https://www.skype.com/en/business/ (2020). Accessed 21 Mar 2020
- Microsoft: Yammer Enterprise Social Network | Microsoft 365. https://products.office.com/uk-ua/yammer/yammer-overview (2020). Accessed 21 Mar 2020
- 14. Outlook Online. https://outlook.live.com/owa/. Accessed 25 Oct 2019
- Pro zatverdzhennia Natsionalnoi ramky kvalifikatsii (On approval of the National Qualifications Framework). https://zakon0.rada.gov.ua/laws/show/1341-2011-%D0%BF (2011). Accessed 25 Oct 2019
- Remo, L.: How Cloud Computing and Technology Enable Better Communication. Converge. https://www.convergetechmedia.com/cloud-computing-technology-enablebetter-communication/ (2017). Accessed 25 Oct 2019