Conclusion: Future roles of Digital Corporate Communication

Vilma Luoma-aho, Mark Badham & Alina Arti

Jyväskylä University School of Business & Economics / Corporate Communication /

Finland

Vilma.luoma-aho@jyu.fi +358408053098

Vilma Luoma-aho ORCID ID: https://orcid.org/0000-0003-1316-3725

mabadham@jyu.fi, +358 0503439379

Mark Badham ORCID ID: https://orcid.org/0000-0003-4521-5294

Introduction

Digitalization is understood as a holistic process of societal change and development brought about by advances in technology and data processing, which occurs in society whether organizations are paying attention to it or not. As society becomes increasingly digitalized, for organizations, staying competitive and maintaining legitimacy requires changes ranging from minor incremental additions to technology to major business model transformations (Hansellek, 2020; Rachinger et al., 2018). In fact, we may only be at the beginning of development of technology for organizations and business. For example, the metaverse of Web 3.0 promises to democratize the internet and de-centralize organisational power from just a few to the many (decentralised autonomous organisations) (Mattila et al., 2022). Further, robotic process automation is taking over routine tasks, thus freeing time for human creativity (Dhengre et al., 2020)

As the quantity of data and the complexity of organizational processes increase, corporate communication has new tasks ahead. Utilization and acceptance of edge computing and other forms of 'just in time' data, combined with the behavioral economic 'nudging' of individuals towards the right decisions, become increasingly value based and ethical in nature, responsibilities of communication managers and leaders. Though complexity may increase, the choices made by organizations will become easier as AI and machine learning enable predictions that portray the potential organizational paths and their outcomes (Hirsch, 2018). When the voices of both human and non-human stakeholders abound in society, whose voice should the organization pay attention to? When pre-programmed functions cause harm to employees or society, who is responsible? How do organisations optimize partnerships when unexpected interests and issues emerge? When masses of data are available, how do organisations ensure its

fair and ethical use? How can organizational messages stay relevant and above the spam of a digitally savvy environment?

This chapter concludes the Handbook of Digital Corporate Communication by reflecting on new functions that corporate communication will adopt in organizations when new technology emerges. This chapter summarizes five new roles for corporate communication emerging from the complex development of technology, and calls for future studies to address the changes brought about by these. These future roles of corporate communication are examined next.

1. *Corporate communication as digital community builder*

The more complex technology becomes, the easier it is for society to polarize and individuals to remain in their own technological user bubbles (Barrett et al., 2021). With every iteration of the internet, enabling technologies make creating a sense of community apparently easier (Al-Omoush, 2021). Despite this, achieving a sense of community online remains very difficult in practice, as expectations remain as diverse as the interests of the individuals working for and with an organization.

Inclusivity will become one of the greatest values for societies and organizations of the future, as the human need for a sense of community remains unchanged (Aral, 2020). This will make organizations responsible for emerging engagement tasks, such as community building and fostering a sense of belonging (Jorio et al. 2021). Whereas polarization may occur unaided, a sense of community does not. Effort is needed from corporate communication to maintain a sense of belonging and community, especially when digital recruitment accelerates the potential for chance and employees are looking for reasons to justify their loyalty.

Individuals group together in the digital realm in virtual metaverses and communities, which are seen as the "form of communication proliferated by the Internet revolution" (Lim, 2014), as members in computer-mediated spaces engage in relational interactions or social ties and repeatedly share information and knowledge for mutual learning or problem solving. This grouping together, however, is no longer organization- or brand-centric (Luoma-aho & Vos, 2010); as even in the case of online brand communities, consumers, fans and faith-holders group together often without the knowledge of the focal brand (Bowden-Everson et al., 2017). This has meant little organizational control over what is discussed on those arenas, despite the power they hold for guiding individuals into purchases and opinions (Reinikainen et al., 2020).

Despite this lack of control, these online spaces are often open for brands and organizational representatives if they choose to take a supportive role (Zuboff & Maxim, 2002). Learning to support stakeholders and customers without driving the organizational agenda remains a challenge but those overcoming it will curate future faith-holders who can help the organization in challenging times and online firestorms that happen sooner or later in the digital realm.

2. *Corporate Communication as organizational conscience for AI*

As advanced machine learning and artificial intelligence (AI) are getting closer to human levels of intelligence (Van der Maas, 2021), they are becoming the new assistants of corporate communication. This assistance takes different forms, ranging from real-time data analysis to predictive monitoring systems for management and employees (Aziz & Dowling, 2019; Akinosho et al., 2020; Lalmuanawma et al., 2020). However, it requires ethical consideration and guidance (Ayling & Chapman, 2021). This is not new for corporate communication, as

algorithms are already producing content for news media, and bots and AI are utilized for building and testing organizational crisis preparedness (Perez-Liebana, 2019; Wong, 2021).

Much of AI still remains in its infancy, as automated messages and tailored content appear as disturbing spam to those it attempts to "help". At best, AI and machine learning enable communication to become more targeted, real-time and accurate as there will be less human flaws and biases in the organizational processes (Hancock et al., 2020). Described at worst as the digital iron cage enabling the surveillance of employees (Faraj, Pachidi & Sayegh, 2018), AI in organizations can also be used by organisational management to guide, predict and reward employee communication and performance. AI can and will also be used for manipulation of content, as fakeholders utilizing deepfakes may strategically attack brands and organizations, thus realizing their worst fears (Albahar & Almalki, 2019). Monitoring stakeholder sentiment may prove the only way to prevent content hijackings for future corporate communication (Luoma-aho et al., 2018).

Data and information flows offer new ways to transform social realities as human activity increasingly becomes subject to programmed analytics and visualization techniques (Vuorisalo, 2018). This means multiple new sources and data points for managers providing information on stakeholder and customer choices and employee performance, and less guesswork for future needs of employees, supply chains and stakeholders (Merendino et al., 2018). Complexity of legislation around data increases along with the development of technology, and ethical breaches in accessing, testing and monitoring data for behavioural insight become more regular, especially in countries and regions with less democratic societies and data use restrictions.

Simultaneously, as different organizational devices connect online, the Internet of things (IoT) is forming stakeholders out of different organizational technologies and even non-human

tangible structures (Luoma-aho & Paloviita, 2010). These non-human entities can support organizational aims such as ideal customer experience, but also make the organization vulnerable if control of these systems falls into unintended hands via hijacks, hacks or breaches (Lakshmanan, 2020). For organizations, the larger the role AI and machine learning take, the more important ethics guiding it become (Buhman et al, 2019). As unforeseen situations requiring contextual understanding and experience still remain challenging for algorithms (Alkhatib & Bernstein, 2019), much of corporate communication functions demanding creativity will be necessary for guiding algorithms in organizations. In fact, a new task is emerging for corporate communication: becoming the organizational conscience for AI (Buhman et al., 2019).

Questions about nudging individuals to make the right choice based on data and making sense of information in organizations become issues that require increased transparency and long term impact evaluations. New questions will need addressing, such as: What are the social costs of AI efficiency? How much privacy and intimacy loss makes an acceptable trade for useful targeting? What is the value of data once lost? What happens when an algorithm developed to serve an organization starts to serve itself or gets hijacked and used for harmful purposes?

For corporate communication, AI holds the power to support stakeholder voices otherwise left unheard and increase stakeholder capitalism (O'Brien, 2020; Jackson et al. 2021). This can only succeed if AI empowers and helps organizations to become more employee- and stakeholder-centered. Understanding and listening to emerging needs and expectations may prove to be one of the most valuable skills of future organizations, yet the limits of what kind of listening is acceptable are constantly re-negotiated. Transparency has been suggested to be a solution in this development, but simultaneously there is a threat of becoming vulnerable by revealing too much (Buhmann & Fieseler, 2022).

3. *Corporate Communication as digital co-creation enabler*

The digital environment will empower not only organizations but also stakeholders, shareholders and customers to execute their creative ideas related to brands. For example, 3D printing can enable individuals to become producers and distributors of any corporate brand or product. Organizational faith-holding will take extreme forms, as fans and supporters will be able to not only live in brand-related virtual environments, but also immerse their lives into all things digital brand-related. Future sales will include not only the product, but its blueprints for reproduction, online community for exchanging such information and supporting its production, as well as the different brand-related digital non-fungible tokens (NFT) (Joy, 2022)

Strongly controlled brand management will become outdated, as organizations can no longer guard their immaterial rights and copyrights. Online communities and support groups will enable peers to build brand experiences and solve technical issues, while the focal brand and organizations behind it often take a backseat supporting role. For corporate communication, this change means giving up brand control. As fakes increase in both intangible and tangible formats (Giachanou et al., 2020), new corporate communication tasks will emerge, such as verification of product authenticity as well as enabling new sustainable ways to trade used and second hand products via reliable platforms. Accordingly, corporate communication will need to step into the role of enabler of stakeholder and customer co-creation of products, services, activities and experiences.

Questions will need to be addressed related to where to draw the line in co-creation and copyrights, how to support faith-holding in its best forms, and what are the consequences of uncontrolled use of the brand and organisational intangible assets in the futures?

4. *Corporate Communication as Boxturner*

Whether a sign of moral panic or conscious consumerism, customers and stakeholders are looking for the values behind brands and organizations (Alldredge, Jacobs and Teichner, 2021). Expectations are rising in society about transparency of organizational management, production and sales (Dethier et al., 2021). In practice, there are more demands from stakeholders, more shareholder activism, and more boxturning in the digital realm. Similar to reading the small print behind advertising messages or "turning the box" around to read the small print, boxturning refers to active stakeholders' and consumers' investigations of the facts behind organizational or brand claims. For corporate communication, boxturning means increasing challenges in advertising and marketing, as all organizational messages need to resonate with the stakeholders on a deeper level than before. Messages put out merely for marketing purposes will backfire: the new consumer boxturners look to test and verify every corporate claim in reality, and loudly report inconsistencies across the digital media. The emergence of Boxturners higlights the urgency of understanding and measuring stakeholder expectations and experiences in real time.

Extreme forms of boxturning in the digital realm also are becoming more common and challenging organizations and brands (Koschate-Fischer et al., 2019). As cancel culture takes over in consumption, there are new and unexpected pressures for organizations and brands to change their behaviour, products or even withdraw from deals or collaborations in the name of satisfying stakeholders' demands (Edson & Charsky, 2021). Cancel culture and wokeism will keep organizations on their toes, as being found guilty in the eyes of stakeholders can lead to rapidly spreading bans and boycotts. These bans and boycotts also result from geopolitical polarization and ideological differences: brands and products originating from an unfavourable nation or location may find it challenging to explain their stance to loud, digital hateholders. Moreover, negative messages spread faster, and fake accusations may prove almost as powerful

as real ones, as the speed of the digital realm keeps individuals from factchecking (Pfeffer et al., 2014).

Corporate communication will increasingly have to focus on digital issues management and framing, as organizational points of view compete for attention among stakeholder opinions. In practice, organizations claiming to be something they are not, or pretending to satisfy diverse needs inauthentically will be accused of inauthenticity and woke-washing (Vredenburg et al., 2020). In addition, such accusations may plague entire industries, when individual brands or organizations get infected or suspected of some misconduct or undesired development.

5. Corporate Communication as global diplomat

The more isolated individuals appear inside their own societal groups, the easier it is to divide and conquer. Organizations will increasingly find themselves catering to an increasingly diverse group of customers across global markets (Shriramesh & Vercic, 2020), yet at the same time nationalistic endeavors may threaten existence in global markets. As the digital workforce becomes easier to recruit across cultures and sectors, new challenges emerge such as changing expectations and geopolitical tensions (Walter & Förster, 2019). These challenges can only be solved with the help of corporate communication.

Simultaneously, the country of origin for brands and organizations may prove to be either an enabler or a hindrance, as reputation in the digital realm is formed based on impressions associated with different nationalities (Chu et al., 2010; Hien et al., 2020). Stakeholders scattered across the globe tend to judge organisations based on their country of origin (Nes, 2018), including how these countries behave on the world stage. Major competition between different

regions may cause organizations and brands to pick sides and markets, when belonging to one may exclude from another.

In the near future, as national governments fail to unite ideologically and socio-politically divergent populations, leading to increased distrust towards governments, organisations and brands will need to take on more of a society-building function (Bolewski, 2022). Organisations encouraging social aspects of responsibility such as diversity and inclusivity will offer employees and other stakeholders a place to belong and contribute to, which will gain greater competitiveness and legitimacy for these organisations in an increasingly divided society (Stevens et al., 2008). For this to happen, corporate communicators need to step up and contribute their core competencies to help organisations fulfill this important function in society. With a heavy focus on dialogic communication, monitoring and relationship-building, corporate communicators are best positioned to transition into this global diplomat role.

Conclusion

Utilizing technology always carries risks and responsibilities as well. At its worst, communication technology left unattended or used unethically may contribute to digital division and exclusion, where major brands rule over masses without voice or access. If left alone, corporate communication (DCC) could become the strategic management of digital technologies to hijack and distort communication in organizations, in society, and with organizational stakeholders for the destroying of organizational intangible and tangible assets.

At best, ethical and empowering DCC becomes a core revenue function enabling organizational success. For future studies, the challenge remains testing these suggested and other emerging roles of technology for corporate communication in impact in different cultural

contexts and settings. As technology becomes ubiquitous, new trends may move communication in unpredictable directions, even back to analog away from technologies. Should that be the case, many of the lessons of digital corporate communication will endure: both in the digital and in the analog, relationships, belonging, ethics, boxturning and diplomacy continue as enablers of organisational success.

References

Akinosho, T. D., Oyedele, L. O., Bilal, M., Ajayi, A. O., Delgado, M. D., Akinade, O. O., & Ahmed, A. A. (2020). Deep learning in the construction industry: A review of present status and future innovations. Journal of Building Engineering, 32, 101827.

Albahar, M., & Almalki, J. (2019). Deepfakes: Threats and countermeasures systematic review. Journal of Theoretical and Applied Information Technology, 97(22), 3242-3250.

Alkhatib A and Bernstein M (2019) Street–level algorithms: A theory at the gaps between policy and decisions. In: *Conference on Human Factors in Computing Systems - Proceedings*, New York, NY, USA, 2 May 2019, pp. 1–13. DOI: 10.1145/3290605.3300760.

Alldredge, K., Jacobs, J. & Teichner, W. (2021) Great Expectations: Navigating challenging stakeholder expectations of brands, December 9th, 2021; McKinsey articles.

Al-Omoush, K. S., Orero-Blat, M., & Ribeiro-Soriano, D. (2021). The role of sense of community in harnessing the wisdom of crowds and creating collaborative knowledge

Luoma-aho, Badham & Arti: Future Roles of Digital Corporate Communication

during the COVID-19 pandemic. Journal of Business Research, 132, 765-774.

Arthur W. Page Society (2021). *CommTech*

Guide. https://commtechguide.page.org/getting-started-in-commtech-from-professional-

to-pathfinder/a-new-profession-emerges/

Ayling, J., & Chapman, A. (2021). Putting AI ethics to work: are the tools fit for

purpose?. AI and Ethics, 1-3. https://doi.org/10.1007/s43681-021-00084-x

Aziz, S., & Dowling, M. (2019). Machine learning and AI for risk management. In

Disrupting finance (pp. 42). Palgrave Pivot, Cham.

Badham, M., Lievonen, M. & Luoma-aho, V. (2021) (in press). Factors influencing crisis arena

crossovers: The Apple iPhone #ChargeGate case. In Lucinda Austin & Yan Jin (Eds.),

Social Media and Crisis Communication (2nd Ed.), Routledge.

Barrett, P.M, Hendrix, J., Sims, J.G. (2021). Fueling the fire: How social media intensifies U.S.

polarization - and what can be done about it. NYU Stern Center for Business and Human

Rights.

Blanchard, A. L. (2007). Developing a sense of virtual community measure. CyberPsychology &

Behavior, 10(6), 827-830. https://doi.org/10.1089/cpb.2007.9946

Bryan, J. (2018, September 17). *What Digitalization Means for Corporate*

Communications, Gartner. https://www.gartner.com/smarterwithgartner/digitalization-

means-corporate-communications/

Buhmann, A., & Fieseler, C. (2022). Deep Learning Meets Deep Democracy: Deliberative

Governance and Responsible Innovation in Artificial Intelligence. *Business Ethics*

Quarterly, 1-34. doi:10.1017/beq.2021.42

Chu, P., Chang, C., Chen, C., & Wang, T. (2010). Countering negative country-of-origin effects. European Journal of Marketing, 44(7/8), 1055–1076. https://doi.org/10.1108/03090561011047526

Dethier, F., Delcourt, C., & Willems, J. (2021). Transparency of nonprofit organizations: An integrative framework and research agenda. Journal of Philanthropy and Marketing, e1725.

Dhengre, S., Mathur, J., Oghazian, F., Tan, X., & McComb, C. (2020, September). Towards Enhanced Creativity in Interface Design through Automated Usability Evaluation. In ICCC (pp. 366-369).

Edson, T., & Charsky, D. (2021). Developing Authentic Corporate Activism Initiatives. https://digitalcommons.ithaca.edu/cgi/viewcontent.cgi?filename=1&article=2025&context=whalen&type=additional

Faraj S, Pachidi S and Sayegh K (2018) Working and organizing in the age of the learning algorithm. *Information and Organization* 28(1): 62–70. DOI: 10.1016/j.infoandorg.2018.02.005.

Gibbs, J.L.; Kim, H. & Ki, S. (2016). Investigating the Role of Control and Support Mechanisms in Members' Sense of Virtual Community. Communication Research. 46(1), 117-145. DOI:10.1177/0093650216644023

Giachanou, A., Zhang, G., & Rosso, P. (2020, October). Multimodal multi-image fake news detection. In 2020 IEEE 7th International Conference on Data Science and Advanced Analytics (DSAA) (pp. 647-654). IEEE.

Hancock, J. T., Naaman, M., & Levy, K. (2020). AI-mediated communication: Definition, research agenda, and ethical considerations. Journal of Computer-Mediated Communication, 25(1), 89-100.

Hensellek, S. (2020). Digital Leadership. Journal of Media Management and Entrepreneurship, 2(1), 55–69.

Hien, N., Phuong, N., Tran, T & Thang, L. (2020). The effect of country-of-origin image on purchase intention: The mediating role of brand image and brand evaluation.Management Science Letters , 10(6), 1205-1212.

Hirsch, P. B. (2018). Tie me to the mast: artificial intelligence & reputation risk management. Journal of Business Strategy, 39(1), 61-64. doi:10.1108/jbs-11-2017-0160

Huang, Y.-H. C., Wu, F., & Huang, Q. (2017). Does research on digital public relations indicate a paradigm shift? An analysis and critique of recent trends. *Telematics and Informatics*, 37, 1364–1376. https://doi:10.1016/j.tele.2016.08.012

Jackson, B. R., Ye, Y., Crawford, J. M., Becich, M. J., Roy, S., Botkin, J. R., de Baca, M. E., & Pantanowitz, L. (2021). The Ethics of Artificial Intelligence in Pathology and Laboratory Medicine: Principles and Practice. Academic Pathology. https://doi.org/10.1177/2374289521990784

Johnston, K. A., Lane, A. B., Hurst, B., & Beatson, A. (2018). Episodic and Relational Community Engagement. The handbook of communication engagement, 169-185.

Johnston, K. A. (2018). Toward a theory of social engagement. The handbook of communication engagement, 1, 19-32.

Joy, A., Zhu, Y., Peña, C., & Brouard, M. (2022). Digital future of luxury brands: Metaverse, digital fashion, and non-fungible tokens. Strategic Change, 31(3), 337-343.

Kannan, P.K. & Li, H. (2017). Digital marketing: a framework, review and research agenda, *International Journal of Research in Marketing*, 34(1), 22-45.

Koschate-Fischer, Nicole; Hoyer, Wayne D. & Wolframm, Christiane (2019). What if something unexpected happens to my brand? Spillover effects from positive and negative events in a co-branding partnership. *Psychology & Marketing*, 38(08), 758-772.

Lakshmanan, A. (2020). Literature Review on the latest security & the vulnerability of the Internet of Things (IoT) & a Proposal to Overcome. no. April. pp 1, DOI:10.13140/RG.2.2.13756.80006

Lalmuanawma, S., Hussain J., Chhakchhuak, L. (2020). Applications of machine learning and artificial intelligence for Covid-19 (SARS-CoV-2) pandemic: A review. Chaos, Solitons & Fractals, Volume 139, 110059, ISSN 0960-0779, https://doi.org/10.1016/j.chaos.2020.110059.

Lim, W. M. (2014). Sense of virtual community and perceived critical mass in online group buying. Journal of Strategic Marketing, 22(3), 268–283. https://doiorg.ezproxy.jyu.fi/10.1080/0965254X.2013.876068

Luoma-aho, V., Pirttimäki, T., Maitly, D., Munnukka, J. & Reinikainen, H. (2019). Primed Authenticity: How Priming Impacts Authenticity Perception of Social Media Influencers. *International Journal of Strategic Communication*, 13 (4), 352-365. https://doi: 10.1080/1553118X.2019.1617716

Luoma-aho, V., Virolainen, M., Lievonen, M. & Halff, G. (2018) Brand Hijacked: Why Campaigns and Hashtags are Taken over by Audiences. In: Laskin, A. (Ed.) *Social, Mobile and Emerging Media Around the World.* Lexington Books: Lanham, Maryland, pp. 57-68.

Luoma-aho, V. (2015). Understanding Stakeholder Engagement: Faith-holders, hateholders and

fakeholders, *Research Journal of the Institute for Public Relations,* 2(1).

https://instituteforpr.org/understanding-stakeholder-engagement-faith-holders-

hateholders-fakeholders/

Mattila, V., Dwivedi, P., Gauri, P., & Ahbab, M. (2022) Mapping out the DAO Ecosystem and

Assessing DAO Autonomy. International Journal of Computer Science and Information

Technology Research ISSN 2348-120X (online), Vol. 10, Issue 1, pp: (30-34)

https://www.researchgate.net/publication/358694594_Mapping_out_the_DAO_Ecosystem_and_

Assessing_DAO_Autonomy

McMillan, D.W., & Chavis, D.M. (1896). Sense of Community: A Definition and Theory.

Journal of Community Psychology, 14(1), 6-23. https://doi.org/10.1002/1520-

6629(198601)14:1<6::AID- JCOP2290140103>3.0.CO;2-I

Merendino, A., Dibb, S., Meadows, M., Quinn, L., Wilson, D., Simkin, L., & Canhoto,

A. (2018). Big data, big decisions: The impact of big data on board level decision-making.

Journal of Business Research, 93, 67-78.

Meyer, J. P. & Allen N. J. (1991) A three-component comceptualization of organizational

commitment. Human Resource Management Review, 1 (1): 61-89.

https://doi.org/10.1016/1053-4822(91)90011-Z

O'Brien, J. (2020). The moral foundations of stakeholder capitalism. Law and Financial

Markets Review, 14(1), 1-4. doi.org/10.1080/17521440.2020.1724373

Perez-Liebana, D., Liu, J., Khalifa, A., Gaina, R. D., Togelius, J., & Lucas, S. M. (2019).

General video game ai: A multitrack framework for evaluating agents, games, and content

generation algorithms. IEEE Transactions on Games, 11(3), 195-214.

Pfeffer, J., Zorbach, T., & Carley, K. M. (2014) Understanding online firestorms: Negative word-of-mouth dynamics in social media networks, Journal of Marketing Communications, 20:1-2, 117-128, DOI: 10.1080/13527266.2013.797778

Reinikainen, H., Munnukka, J. & Maity, D. & Luoma-aho, V. (2020) 'You really are a great big sister' – parasocial relationships, credibility, and the moderating role of audience comments in influencer marketing. Journal of Marketing Management 36 (3-4).

Rovai, A. (2002). Building Sense of Community at a Distance. International Review in Open and Distributed Learning, 3(1), 1-16. https://doi.org/10.19173/irrodl.v3i1.79

Sriramesh, K. & Vercic, D. (2020) (Eds.) The Global Public Relations Handbook. Theory Research and practice, Routledge, New York.

Stevens, F. G., Plaut, V. C., & Sanchez-Burks, J. (2008). Unlocking the Benefits of Diversity: All-Inclusive Multiculturalism and Positive Organizational Change. The Journal of Applied Behavioral Science, 44(1), 116–133. https://doi.org/10.1177/0021886308314460

Van der Maas, H. L., Snoek, L., & Stevenson, C. E. (2021). How much intelligence is there in artificial intelligence? A 2020 update. Intelligence, 87, 101548. https://doi.org/10.1016/j.intell.2021.101548

Vredenburg, J., Kapitan, S., Spry, A. & Kemper, J. (2020) Brands Taking a Stand: Authentic Brand Activism or Woke Washing? Journal of Public Policy & Marketing (4): 444-460. doi:10.1177/0743915620947359

Vuorisalo, V. (2018): Algorithmic Life & Power Flows in the Digital World. In: M. Lehto, P. Neittaanmäki (eds.) Cyber Security: Cyber power and technology, Springer, Berlin.

Walter, A., & Förster, S. (2019). The effects of globalization on human resources management in SMEs. http://dspace.tsu.ge/xmlui/handle/123456789/502

Wong, Y. K. (2021). DEALING CRISIS MANAGEMENT USING AI. decision making. International Journal of Computer Science, Engineering and Applications (IJCSEA), 11(5), 2. https://doi.org/10.5121/ijcsea.2021.11502

Yaxley, H. (2012). Digital Public Relations - revolution or evolution? *The Public Relations Handbook*, 411–432.

Zuboff, S. & Maxim, J. (2002) The Support Economy: Why Corporations are Failing Individuals and the next Episode of Capitalism, New York, NY: Allen Lane.