

Mediatization and Human-Machine Communication

Astitva Raj

Research Scholar

Department of Mass Communication

Galgotias University

Abstract

Human-machine communication is the unique relationship between humans and machines. In this world of technology humans are the closest one to the machines. The paper focuses on how the media students and media professionals think about human machine communication like ChatGPT and its emergence. Also, to what extent current phenomena of automated communication represent mediatization re-asserting itself. The paper shows the study of how much people are into technology. Findings based on data from qualitative interviews with 72 media students and 10 media professionals that how much they are dependent on technology, are they using latest technology gadgets and do they think overdependency on technology will destroy creativity. Findings shows that media have a high effect on society and humans are incomplete without technology.

Keywords: ChatGPT, Human-machine communication, AI, Mediatization, Media, Gadgets, technology, journalists

Introduction:

Since last ten years we have seen multiple events happening. And one of such events is growth in technology. During the pandemic we all had a struggle to explore gadgets and technology which were already present around us. People started taking technology as part of their life during lockdown. But after this phase growth has been seen in terms of technology. Industry is using technology of Chatbot which is communicating with us on their behalf. New tech related software's have made things easier for the users. Canva which provide free templates for designing have made things easier for the graphic designer. Recently ChatGPT have entered the market and people have started using it for different purposes. From virtual assistants to the robot's people are interacting with highly communicative technology in their daily life (A. P. Edwards, 2018). Also, the emergence of AI (Artificial Intelligence) has incited a shift across the spectrum of human endeavour, with the latest ChatGPT serving as the catalyst for various established or available domain (Luan, Lin, & Li, 2023).

It becomes very much important to understand the human-machine communication process and their dependence on each other. Human-machine communication process is how humans deals with the technology. The concept of human -machine communication is part of communication. It creates a meaning between human and the machine. In HMC model the flow of message is between humans and machines (Guzman, 2018). The paper explains the dependency of humans on machine. Also, how the students of mass communication use the machine and technology.

The goal of this study is to understand the dependency of media professional and students on technology. And what are their thinking about the effect of technology. Also, to what extent do current phenomena of automated communication represent mediatization re-asserting itself?

ChatGPT is very important tool in the field of education, it needs to be used very carefully (Tlili et al., 2023). The technology has reached to the students and this paper will be taking about what students think about the invasion of technology in the field of education.

The paper explains the dependency of humans on machine. Also, how the students of mass communication use the machine and technology in their daily life? How media professional sees ChatGPT for students and for the industry? Is media industry helpless without technology? Also, the study contains the media personnel bytes about the extent of automated communication representing mediatization re-asserting itself.

Literature review:

Transformation of technology from simple voice-oriented devices to the robots. People's response to this transformation is changed. Human-machine communication has developed a lot with few years. During the 21st century, the COVID-19 pandemic had spread in the world and people were forced to stay at home. The crisis brought the tsunami in communication technology. So, the humans communicated with the help of machine to achieve goals. They used the search engine to gain information. Also, they used GPS navigation system, automatic monitoring tools, websites, and a wide range of automated tools. The human- machine communication has contributed in people's private and work life during the pandemic. The humans were developing a meaningful relationship with the non-living objects (Kim, Kreps, & Ahmed, 2021).

Ontological boundaries are the important implication for the process of human- machine communication. Somehow human's interaction with the technology is influenced by the ontological boundaries. Most of the humans consider emotion as one of the key boundaries but on other hand some people's interaction with communicative technologies designed to emulate human emotions like Apple's Siri. People's idea of difference between humans and computers and the nature of both develop interpretation of technology as communicator. For many humans both humans and computers are having attributes of intelligence. There are some humans who think that computers are having big brains while there are some peoples who think that humans are smart enough (Guzman, 2020).

If human get replaced by the machines in the offices, the interpersonal advice process clearly is more social as compared to the human advisor. When humans who are somehow connected in the form of relationships are replaced by the machines, then the social interaction is lost instead of being replaced. Also, humans do not like the fact that the human advisor is getting replaced by the machines. The decision maker does not like when the replacement is held on a task that is less demonstrable. The stages of replacing human advisors with machines are complicated. It is not only humans who are replaced will be unhappy; the people who must work will these machines will also be unhappy (Prahl, & Swol, 2021).

ChatGPT have power to boost the librarianship in exiting new ways. However, it is important to use this technology ethically (Lund, & Wang, 2023). ChatAPIS and GPT-3 have that

potential to offer benefits to higher education, including students' engagement, and accessibility. ChatAPIs provide asynchronous communication, enable student groups, and facilitate remote learning. On the other end GPT-3 is used for translation, summarisation, question answering and text generation. Universities should use these tools very carefully and ethically. Training and support should be provided to the students. University should guard the quality of educational programs (Cotton, Cotton, & Shipway, 2023).

ChatGPT can be used to check plagiarism. ChatGPT can be used to lesser the high originality in students' assignment. On the other end anti-plagiarism software uses AI to get the originality of the assignment. While GPT-3 can do the review of the student's AI generated assignment on behalf of the checker or the teacher via simple command. Higher education reaction to the GPT-3 and ChatGPT is of banning them or prohibit to use them. Currently the limitation of ChatGPT is that it does not provide the source (Rudolph, Tan, & Tan, (2023). ChatGPT to revolutionize the current educational system. There are many who wanted ChatGPT to be banned in schools. On the other end there are some who have started making AI to detect the ChatGPT generated text (Baidoo-Anu, & Ansah, 2023). ChatGPT and Google Bart AI offers various possibilities to improve educational experience for learner. But these AI technologies can be used in unethical way by the students for assignments. The plagiarism checker used by academia institutions is not able to catch the text written by ChatGPT due to advancement in AI (Khalil, & Er, 2023).

Within two months ChatGPT has become a cultural sensation. It is freely available through a web portal. The program will create the content based on the written prompts. It can write essay on certain topic. Authors at the Science family of journals signed a license which states that the work should be original. But for science journal the word original means content by ChatGPT is not acceptable (Thorp, 2023).

From in-person to human machine communication trying to show the feminist point of view. The view had made us put forward the gender issues in Human machine communication with necessary depth. The research agenda of the gender and HMC are more on theoretical analysis of current situation of women and that is ready to address the big questions which remained open (Fortunati & Edwards, 2022).

Industry 5.0 defines the human-machine communication by getting the human aspect to the production. There is such a huge shift in manufacturing paradigm which have worked on economical technical solutions in favour of reducing labour expense (Pizoń, & Gola, 2023).

The subject expert performs the task better in multitasking environment. Experts are performing better than novices (Lin, Robertson, & Lee, 2009). With the expansion of AI, the publishers also look where these technologies can be applied in their business. Personal assistant was removed for cost cutting but They are back in the market in the form of AI bots. AI bots can handle diaries, organize meetings, and check mails. *Replika* which is an AI can pick your mood and preferences after getting trained. AI bots also help the journalists is checking facts (Newman, 2018). The technology and the latest gadgets can aid in creation of the meaningful and helpful lecture. The target can be reached and achieved by using technology as a tool (Gonzalez-Acevedo,2016).

The technology-enhanced gadgets have made life easy. The child uses the gadgets for educational and entertainment purpose. Children use gadgets to learn new things but still there

is negative impact on them. The impact can be like health, social, physical and mental development. It becomes very important for parents and the caretaker or the teachers to make sure that children do not get over dependent on the gadgets (Zain et al., 2022). Scientist have used communication for development of technological interface. Communication is people interaction with people and now they are in interaction with the machines (Guzman, 2018).

The media industry relied on the technology for bringing it to life. Without the letter press there would be no book, without telegraph no newspaper and so on. Technology change in media industry is the renewal of the industry. The media exists because of technology (Küng, 2008). An average journalist today can create the basic chatbot by using the online tools. Chatbot making is accessible nowadays as a average worker in the media industry can use the online available tools for making the bot (Kotenidis et al. 2022).

Emerging technology in the surrounding is not in hand of machine nor in the hand of humans. Contribution of media and cultural studies are the requirement for supporting new ideas and applications in the AI field (Taipale, & Fortunati, 2018).

Mediatization is important concept in today's time when everything is in a stage of development. Mediatization is related to modernization of the society and its culture (Hjarvard, 2013). Mediatization is specifically for the transformation of society and the life of people through the modern media. Mediatization the point of societal change (Lundby, 2009). Automated political communication involves the creation, and control mutation of some party. Bots are among the latest part of technology in the campaign. The technology plays the very important role in framing public sentiments and opinion. Bots are also of concern for the media personnels and the policy makers (Howard, Woolley, & Calo, 2018). Mediatized society is always seen as that allows exchange of information at high speed. Rumours, belief, and fandom originate from society which get spread via media (Mazzoleni, 2014).

Method:

This research is based on qualitative research design. The paper used the interview method and structured interview questionnaire for the data collection. The paper was conducted in two phases, by interviewing the media professionals and media students. The first phase was conducted with students where a set of questions were asked to them. Similarly, the other phase was conducted with the media personnels where they had a telephonic interview. Each phase has structured interview questionnaire related to Human-machine relations and mediatization focusing on how technology and media is affecting the life of people.

The respondents were media students of Galgotias University. The enrollment list of the media students was used as sample frame which had 88 students enlisted. After applying the formula (Image 1) to find sample size which came out to be 72 as the sample size for the research. Interview was conducted among 72 media students selected randomly using probability sampling from the sample frame. Among those 72 media students some are pursuing masters of arts in journalism and mass communication while others are pursuing bachelors of arts in journalism and mass communication.

$$\text{Finite population: } n' = \frac{n}{1 + \frac{z^2 \times \hat{p}(1-\hat{p})}{\epsilon^2 N}}$$

Image 1: Sample size Estimation

Where,

z is lambda

ϵ is the margin of error

N is the population size

\hat{p} is the population proportion

To reach saturation and redundancy in grounded theory studies that use in-depth interviews we have considered 10 media professionals for the interview. Telephonic interviews were conducted with the media professionals who are active.

Findings:

The findings of both the phases are explained separately in details which developed greater understanding of Mediatization and Human-machine communication.

Media personnel and technology

Mediatization using the automated communication have power influence or affect the society. Media is connected to us through instant messaging sites viz. *SMS*, *WhatsApp*, video sharing site viz. *YouTube*, social networking site viz. *Facebook*, broadcast media viz. *Television*, *Radio*, and other sources. They have a quick connect to us. The information released by media houses reaches us within seconds. Hence media people feel that they are one who can lead or mislead us. They follow the ethics while narrating or providing information to us. But on other hand social media is also a part of media where mostly available things are misleading the normal humans.

One-third of the media professional feel that social media and sometimes the main stream media shares the false or unnecessary news which affects the society badly. According to them any show or program or post which reaches the audience affects them is both positive or negative way. Also, media needs to act responsibly as it is the 4th pillar of democracy. Majorly all the media professional has their opinion that media misses out the major news which may benefit the society. About one-third have a strong feeling that media runs agenda which may affect the society in bad way. All of them have stated that media has changed a lot. Now media is in the game of TRP. People know what media show them, apart from it they do not have any idea what is going in the world. But if media work leaving the TRP backside it will really help in growth of the society. Two-third of them have stated that media is a corporate sector now. So, it displays what their bosses wants to get displayed. Media is making that information get viral which is in trend. But there are few sections under which there are major news which get reflected and do not get published.

During election also media plays very important role. If media portrays a particular party bad then image of that party get cloudy in front of the people. Hence it will benefit the other party. Some media professional believe that media is leaving the major information which may educate students. Instead of showing or releasing some good science related news they are always in run for TRP.

Just after pandemic big media houses continued the trend of work from home whereas some small one is on social media platforms to show they content. Big media houses got a boom after the pandemic when most of them were available on YouTube and social media sites to give information. Media houses stated getting dependent on G-meet, Zoom, and other applications. These applications helped the media houses to stay connected and deliver things fast. While on other end there are small media houses who still like to work like they were working before 2019. They do not have any big technology difference. The only thing they are using is zoom, G-meet, YouTube, and social media sites for delivering their message. They believe that technology advancement should come in the small media houses too.

Almost all the media houses are aware of ChatGPT because they are the one who are providing us information about it. Almost all the media people have idea about ChatGPT but they do not use it in their professional life. Two-third of the media professional participated in this research felt that ChatGPT and other AI can be bad or good. It all depends on how these AI are getting used. According to media professionals when computer came in life of humans the same question was there then also. Will it destroy the creativity? Will it disconnect humans from another human? Media is clear with their answers that technology can never be a barrier for humans. It always brings growth. It expands creativity level of humans. The only thing matter is the ethics which should be there for every user who are usings it.

One-third of the media people participants have used the ChatGPT in personal. But they think that ChatGPT is just the brainless AI which provide us any data available on internet. AI do not get answers from the authentic source. All the media houses are using Chatbot for the query or feedback process. But media industry is not preferring the ChatGPT for the industrial use.

Media students' perspective of Mediatization

Media today has maintained a standard. The stand of being honest and authorized in front of public. Media is becoming the quickest information delivering platform where people get things too fast. Media is the powerful tool which can be used for development of the society. Students have the strong opinion about media that this affects the society in both positive and negative way. Sometimes media brings fake news but on the other hand there are some media who are meant to deliver true information. Media can create a big impact on society. Media affects the culture, politics, religion, and other concepts. Around two-third of the students have their opinion that media is the powerful weapon which can create or destroy the country.

There are many students who just share things on social media in the form of story without having a clear idea of that. This lead to rise of FAKE news. On the other hand, media students feel that news provided through the television is not sufficient as there are lot of things which need to get noticed.

Media students and Technology

80% of the media students who were Part of the research feel that books are losing space from everyone’s life in some or other way. Majority feels that books are leaving us because of the gadgets like smartphone which made our work easier. Also, these people have opinion that they an easily access pdf of the books they want on the digital field. Gadgets like laptop, smartphones have made things easily available for them to get entertained. But the rest 20% media students states that they are surrounded by books as students used books for studying in schools and colleges. They use notebook for reading and writing things. Schools have clear instruction to not bring any kind of gadgets to the school. Technology is not replacing the books but it is helping in getting things quickly. It depends on students whether they are misusing the technology or using for better things. Books will always remain part of our life.

Today’s generation is totally dependent on technology for any sort of information. 91.7% of students know about the ChatGPT. Also, 48.06% have used this ChatGPT in their daily life. Students feel that ChatGPT can be useful and harmful for the students. And this thing depends on the how the technology is being used. It is up to the user that he can use it for the good thing or he can go in the negative way of usage. But on the other end 23.61% of students feel that ChatGPT is totally a loss for students. It is not useful for them. This will stop their mind development.

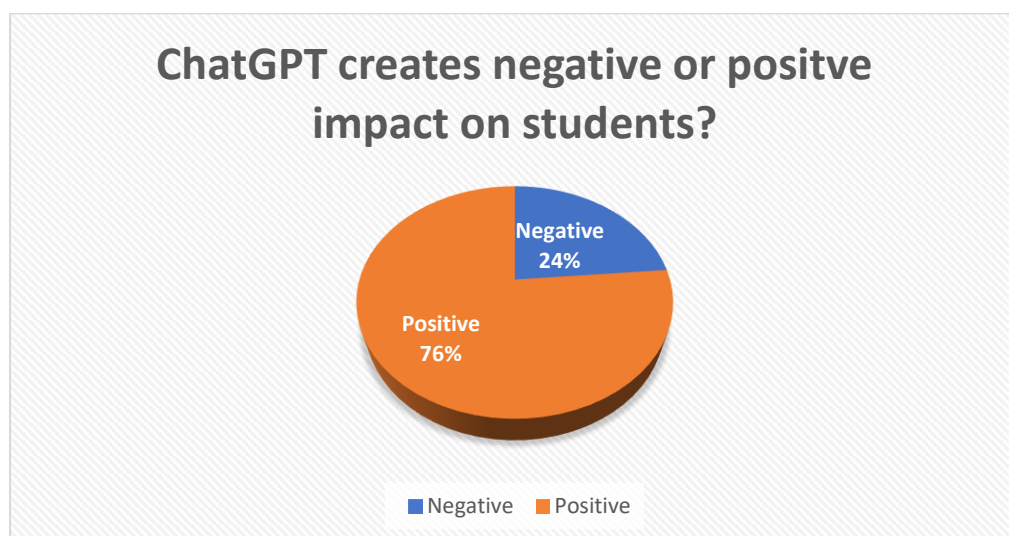


Fig. 1: CHATGPT’s impact on students

Talking about the creativity of the students. 44.06% of the students stated that technology give rise to creativity. Creativity never dies it will always rise. Technology has always given a way for mind development and creative progress. But there are other media students who feel that if students start using the ChatGPT and the other AI’s there might be a chance of students becoming lazy. Lazy in terms of using their brain to think something new.

The question of human getting separated from each other due to technology lacks in terms of response of the participants. Because majority of the participants feel that technology created a loop where people are connected through video calls but are far in their real life. People are lacking the physical presence. People are connected through various applications. They can get in tough through video calls, calls, messages and so on. But on the other hand, there are some students who feel that students are getting stored or locked in their rooms because of these

gadgets. They are into games which keeps them diverted because of this they lose physical presence.

Will students be able to leave their phone or any gadget for a day? According to 72.22% of student’s smartphones have become part of our life. The gadgets are our requirement to obtain some result or to stay connected. According to these 72.22% of students it is impossible to spend a day without using any type of gadget.

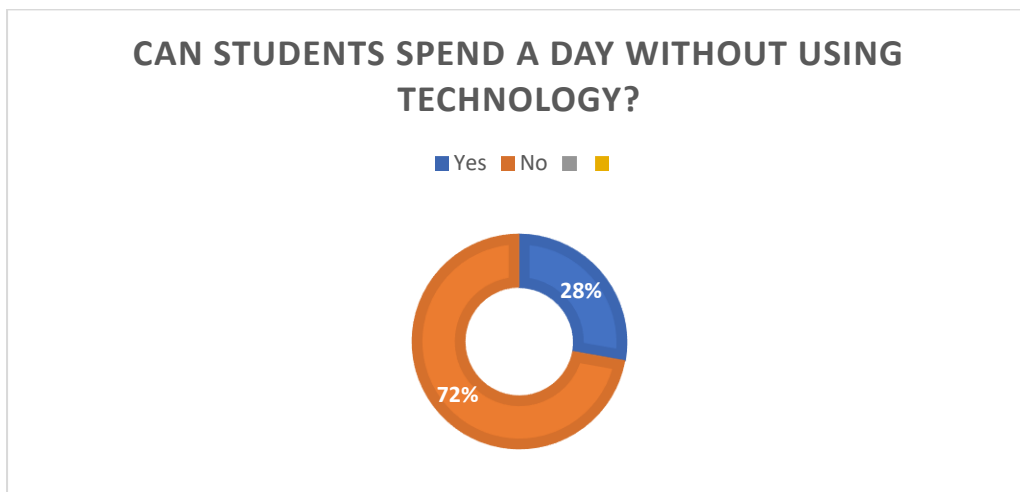


Fig. 2: Student with/without technology

These budding journalists are in the stage of growing where they are getting to know about the industry. While getting the response through most media students felt that industry will be incomplete without technology. In today’s world when there is requirement for fast delivery of news this technology is helping the industry to work in strategic mode. In this era media cannot work without using technology. People are in of these tech-gadgets for finding ways using GPS, messaging, calling, socializing and so on.

Conclusion:

The purpose of this study was to better understand media persons and students view point on Mediatization and Human-machine communication. Many of the working journalist have an opinion of media covering less important event and running an agenda. Media work for TRP and now this business is all about TRP. Media industry is like any other corporate industry. Media can be seen as creator and destroyer of the country. As it may mislead us or help by giving right information. Media people work according to their bosses this is happening because media has transformed itself into a proper corporate sector. Media people use bots for survey or feedback but avoid using ChatGPT. Creativity never dies. As technology grow in market and around us there is a high chance of creativity getting a rise. Media industry has adopted a lot in terms of technology specially after the covid period. Majorly big media houses use the advance level of technology. ChatGPT can be harmful for the students and at the same time it can be profitable. This all things depend on how these technologies are getting used in their daily life.

For media students automated communication method can be used to influence people which may create or destroy things. Hence media is a powerful weapon. And the weapon must be in right hand to get the country in major development part. Students are so closed to technology but majority of them feel that ChatGPT is not good for them. It will make them lazy. On the other end they feel that creativity will do not die because of technology it will give us more opportunity. Technology has connected people though applications, software, and gadgets. People who are far can been seen through video call or connected through calls.

Mediatization is has clearly re-asserting itself though automated communication. It is creating a great effect in everything happening in the society and the country. On the other end media students and professionals are adopting new technology but it depends on user who is using it that the result will be good or bad. Seeing the current situation where we all are becoming the part of technology by using it. It become hard for any kind of industry to survive without technology. Also, ChatGPT do a lot of mistakes so it become hard to depend on it.

Author Biography:

First author: Astitva Raj is a bachelorette in Journalism and mass communication. He is currently pursuing Master's degree in Journalism and Mass communication from Galgotias University. He has worked with Times Internet as an Associate in the year 2022. He has worked with NDTV news channel as a Program coordinator intern.

Correspondent author: Dr. Tasha Singh Parihar is currently working as Professor in Department of Mass Communication. She has total experience of more than 11 years of teaching Journalism and Mass Communication and has been associated with Galgotias University since 2018. She has worked earlier as Assistant Professor in Amity University, Noida and Project Associate for Nanyang Technology University, Singapore. Her expertise is in quantitative research in ICTs, Game Studies and Social-Media. She is university topper and gold medallist in BJMC & MJMC and 9.67 CGPA in PhD. Her latest contribution is development of three scales namely Social Ethos Scale, Cultural Ethos Scale and Educational Ethos Scale. She is an honorary member in Editorial Board of IJBST Journal Group. In 2021 she was felicitated as Best Media Research Educator of the year by Media Federation of India and Exemplary Academician of the Year Award by Eureka Publications. She is an invited author from the prestigious London Journals Press.

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