

The Influence of Technology Developments on Communication Disorder in the areas of Social and Emotional Activities

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Abstract

Technology advances on communication has transferred human social and emotional interactions from physical space to social media environment. Advanced implementation and use of (ICT) tools in day's society have expose us to social media modernity and make us forget about our physical daily interactions. With the coming of internet of things (IoTs), artificial intelligence (AI), natural language processing (NLP), emotional intelligence (EI), Robots, cloud computing, big data and social media environment, humanity have got involved in challenges or changes from the social media space which require new technology such as society 5.0. Society 5.0 allow human interact with others and same time with technological tools. Machines have silenced the interaction between humans nowadays by taking over social and emotional attachments. Physical and emotional attachments have been shattered and deviated to emotional intelligence via video calls, text messaging, and emailing. Social interactions have been deviated to a new environment called social media environment made up of (Twitter, Facebook, WhatsApp, Viber, imo, zoom, Microsoft Teams, messenger, Gmail, text messages Instagram, TikTok). Society 5.0 technology ensure harmony and understanding of expectations that portray a course of action with little or no disruptions of social and emotional activities. Human activities will be at the center of every technological aspects that will not consume human culture any longer. The study identifies aspects of humanity disrupted by technology, suggest a suitable balance sheet of modern technology and modern humanity. It recognizes that technology has come to help ameliorate human activities but not to replace human ethical culture.

Keywords: Technology Development, Communication Influence, Social and emotional activities, Social Media environment.

Introduction

All living organisms with aspects of technology communicate. Modern cooperation that aim to enhance the position and activities of man's capacity by returning his or her position in "Centre of the Universe is fast approaching us through society 5.0. From the industrial revolution called industry 4.0 we have seen human activities and position been taken up by robots without man's awareness. According to "Fukuyama., (2018)". from the advance internet of things (IoT) up to emergent intelligence, smart factories, e-health, cooperative game theories and many others which are being developed in organizations through management systems where authors and inventors work. The modern convergence of these theoretical technologies to practical and real live scenario according to our minds, will provide the transformation from Industry 4.0 to Industry 5.0 through society 5.0. Gradually technological evolution is driving us steadily from Industry 4.0 to Industry 5.0: from digital manufacturing to digital society called society 5.0. According to "Skobelev and Borovik., (2017)" industry 4.0 moving towards industry 5.0 through society 5.0 is an important aspect of live as man is place at the center of things. In this era social, economic and organizational challenges and problems will be solved. Modern technology nowadays is helping us surviving the fourth industrial revolution known as industry 4.0.

Industrial 4.0 which combines technological world with real things like ((global, regional and national inequality) and (age, sex, gender, color and language inequalities and differences). Society 5.0 through (artificial intelligence, assistive robots, E-health or telemedicine or telehealth, mobile health, (online store, shops, malls), (smart factories, production lines, assembly processes, distribution and warehousing systems), big data, 5G, and the Internet of Things (IoT)) with their "virtual twins

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capability is being drifted to human center by society 5.0 where physical activities can be acknowledged and recognized with the internet of things (IoT). Society 5.0 gives intellectual creativity upper hand over systems activities and this era will place man lies beyond the ideology of industry 4.0.

Discussion on the Influence of Technology on Communication

According to “Polat and Erkollar, (2020)” they lay infancies on the movement that interact with individual with the aim of using systems, software, programs and processes that work in together in harmony with one other with the help of interest of society, through the Internet of Things called society. With the advancement of industry 4.0 that has the capability to escalate things with the help of technology. Modern social, economic and organizational supports to a well advance Society 5.0 is thanks to Internet of Things and Artificial Intelligence that have place a lot of infancies to solve the challenges of industry 4.0.

According to “Onday, (2019)” the fast growing Information and Communications Technology (ICT) which has drastically metamorphosis into the information society through industrial digitalization transformation, is able to create new values that will become the most advance pillars of industrial policy in many countries. These new values that will be created by society 5.0 will be observed via social, economic and organizational development. The many social, economic and developmental challenges created by technological development are going to be solve. According to “Pereira et al., (2020)” society 5.0 is an industrial revolutionize promises to promote production and improved operational efficiency and effectiveness through the development of new business models, products and services that can enables real-time perfect production planning and dynamic optimization systems, processes and programs in contrast to conventional forecasting policies. Society 5.0 is a modern technological tool of development that has emerge to solve the problems created by Industry 4.0 to benefit the humankind and that will integrate intelligent systems constructed by Industry 4.0. Society 5.0 is a huge benefit to mankind rather than as adversaries as seen industrial 4.0.

Society 5.0 is here to share with human beings the benefits of advanced technology of industry 4.0 by solving social, economic and development problems. Society 5.0 is here to lay special focus and infancies on human beings by putting him or her in the center position of innovation, technological advancement, development, transformation and industrial automation put in place by Industry 4.0. This blended era called Society 5.0 will play an important predominant role in enabling the most fulfilled, happiest, satisfied, accomplished, and motivated the most importantly advance productive society. Society 5.0, referred as super intelligent society by scholars is meant to use advanced technology of Industry 4.0 for enjoyment of human beings for the promotion interconnection between people and systems in cyberspace through artificial intelligence. According to “Potočan et al., (2020)” they said that society 5.0 is here to balance the innovative technological inequalities created by industry 4.0. It is obvious because industry 4.0 has brought about highly concentrated technology to societal issues with little or no attention to human beings. This is obvious that society 5.0 is here to set the stage and set records for checks and balances. According to “Ferreira and Serpa., (2018)” society 5.0 will improve upon the quality of life through political systems as many people will be place under one roof. The main goal of society 5.0 is to bring everyone together through the use of innovative technology. There is going to be advance social development amongst countries due to society 5.0.

Technology has regulated social interactions through E-health or telemedicine or telehealth, mobile health, (online store, shops, malls), (smart factories, production lines, assembly processes, distribution and warehousing systems) with the use of NLP, AI, EI, assistive robots, big data, 5G, and the Internet of Things (IoT)). This changes are defining how modern business and organizations and humanity now operate with little or no emotional interaction.

Tools and devices allowed technological influence on communication

The advancement of technology has altered the ways that human beings communicate. Before humans usually communicate face to face Following the advancement of technology there had been gradual change. Today technology had put a different level between systems, devices and human beings. It all began with telegraph that paved the way for the telephone. From cellphone to mobile phones to the internet cell phones, text messages, b emails, video calls and social media. Following the widespread use of technology in communication, social and emotional interaction has been overridden. The traditional methods of photography of hard photos replace by social media photos. The culture of sitting together to watch hard copy photos replace by the society and businesses world.

Social media environment. With advancement in technology, there's been a lot of tools that have successfully and completely medializes human culture of social and emotional being. Tools like Twitter, Facebook, Instagram, messengers, WhatsApp, Microsoft team, zoom meetings and many more. Today rallies, guardering, social discontent are all shared via media formats. Before technology era, human beings used to guarder to listen to debates, political campaigns, social guardering like ‘njangi’ for most Africa women has disappeared. Today nations no longer take diplomacy serious as everything is done now behind the computer screen. Nowadays, human beings have replaced their photos album with

galleries of Facebook, Instagram, Twitter apps. There is no longer an option for people to guarder. Everything that could bring love ones together has been carefully online. Parents no longer visit children in their various points. With a computer or smartphone a family meeting is organized at no cost and everything is handled perfectly.

Mobile phone. The introduction of portable mobile phones in the communication realm, enabled people to remain connected with one other whenever and wherever they are. With the development of elements like (video calls, voice calls, text messages, emails, galleries and other communicative software mobile phones that allow users a chance to send and receive text, photos, videos messages.

Modern systems allowing people to exchanges photos and messages with lots of ease has kill some social and emotional cultures like photography, physical videos via instantly. The culture of queuing for a photograph, anxiety and anxiousness of waiting for a photo. The disappearance of the culture friends and relatives keeping hard copy photos has been killed and buried by social media space.

Video Calls. With the availability of internet, cloud computing, internet of things, smart cities concepts, growth of technological adversities. Many tools like skype. Snapchat, WhatsApp, zoom meeting, Microsoft team it is very easy, quick and at no cost to Video calls. This system has virtually revolutionized emotional communication of individuals that used to allow people face to face. Video calls have at its lowest cost has actually reduce time, place and venue of events. When people place video calls, they see each other's facial expression.

Before, seeing and meeting friends, families, love ones from different locations used to be very emotional. Following the advancement of technology seeing and communicating has wipe away this culture. People are more and over expose to love ones which makes it normal and non-excited to meet. All geographical boundaries are shattered by technological development. Business trips are no longer there as logistics system do home delivery.

Blogging. Today blogging have gained popularity and grateful transform into business tool. Blogging is now effective methods of communication, especially in the business context. Business and source of information. Before many people used to read news photos, papers, listen to radio and watch television. Nowadays technology have changed most of this social points where people used to sit and share their thoughts and feelings. Nowadays people share their thoughts and feelings via comments bottens on various blogging apps. Today people are even sensor, restricted for expressing their views due to Technological influence. Communication has become a remote tools for owners of this application and tools. Today most organizations utilize blogs for their advertising purposes, and great success has been realized in this area. Also individuals have embraced blogging as a point to share ideas other people. Nowadays people use blogs to share instructional information, share family adventures communicate anything that they need to pass to others. Today no private view of feelings can be seen with changes in technology. Today many bloggers claims a fair share of the communication cake.

Smart Online Chat. Technological developments via systems and applications like NLP, websites and some social media environment tools have really prompted online chats to communicate with business, peers in real time. Online chats are the most common nowadays because advance in technology. Chats are normally granted via almost all email providers as a bonus capability attached to networking sites. As communication is found in every aspect of our daily lives, many if not all are constructed smart chat-bots and this is greatly replacing customer service. People no longer see need for physical interaction.

Email and messages. Handwritten, essay writing, projects, composition, invitations and many other correspondence in personal and business interactions have a gradually deviated to online services now run and regulated my social media environment. This social and emotional attachments activities paving the way for email and messages are methods of technological influence on communication. With regards to education, health and business environment, emails and messages are now utilized as main essential and commonly communicate ideas with customers and employees. Email and messages are now used by education, health and business sectors to communicate to students, parents and patience on issues of interest to the parties. Emails and messages have captured the interests of many users, especially due to the ability to get prompt and immediate feedback among communicating parties. Using other in-person written correspondence take time for the message to reach the intended recipient and the response from the latter takes the time to reach the other party. Emails and messages are very cheap, convenient and friendly to the users. Due to Technological influence on communication most providers offer free accounts and free of charge message.

Challenges emanating from technological influence on communication

Change of place of innovation. In recent years innovation used to take place within an institution. Innovation used to take place in the office. Following technological development it's now observed that the main place of work is not only in the office. Nowadays cloud computing, internet connection, and internet of things is making it possible to access documents wherever. Following this changes, it's been observed that place of innovation is changing as well.

Home office. Technological developments on communication has greatly affected humanity and social interactions. Following the outbreak of covid-19, many people results to work from home. Now it's a new system that people working from different locations with the help of computer and internet connection. Files are very easily shared amongst employees. Meeting and conference are now held behind the screen.

Online health services. According to (Amazon 2020) they announce the opening of online pharmacy. That is wonderful. This a very good example of technology development on communication. For patients to access the pharmacy, they require internet access, a mobile or computer device and a communication system. With all this it is very much easier to monitor patients without personal contact. It's very easy to get treatment without living your comfort zone.

Broken homes. Nowadays there is a lot of negative impact on family with regards to technological development. We see more device issue, new forms of relationship, new type of engagement and many others. With technology development and influence on humans, it's observed that many things can be obtained via the internet. This had probably make physical interaction and emotional attachments fade away. This alone account for numerous device issue and broken homes and society.

Cultural deviations. Technology development on communication does permit for every opportunity to be afforded, but is able to creates more opportunity than in the past. This technological advancement on communication allows the opportunities previously separated by socioeconomic situation to find attachment but this change virtually remain a story than a regular basis. Many aspects that holds humanity attached to technological device and applications are stronger than those for social and emotional attachments.

Techniques on enhancements of social and emotional disruptions of technology on communication

Change capacity building in industrial and organizational setting to achieve product efficiency and effectiveness. According to “de Abreu and Ceglia., (2018)” they said there is too much emphasis on the technological aspects and business models instead there should be need to incorporate more social aspects or criteria in order to operate capacity building in industry and organizational setting. Due to changes in management systems standardizations, it is very important to created more partnerships between business communities with policy makers that Human beings have greater autonomy. There is a lot of changes and as standard management system changes, we need to shift our systems to meet up and these is effectively done via good partnerships than technological point of view. For this reason, there is need for engaging human aspects and activities with technology as the case is with society 5.0.

Modernizing and improving structures, enhancing development, systems and processes by reinforcing strategies greatly motivated me. According to “Adler et al., (1999)” the struggle to balance the relationship between flexibility and efficiency. In the era of industry 4.0 there is a lot of efficiency but little flexibility. In industry 4.0 almost everything is handle by machines and to make any adjustments there is time planning, system hold, production hold. As shown by society 5.0, technology activities are share with human aspects and this two elements of efficiency can be in control of machines while flexibility could be in control of human efforts. For this to happen, we need a blended system such as the system propose by society 5.0.

The technological development pressure to strive by organizations to built-up, change of capacity and enhance greater efficiency and effectiveness has come with challenges in three levels as seen below.

Product design challenges and customers wants and preferences. According to “Loza (2004)” intellectual capital and organizational learning capability differ due to changes in product design. This has an impact on the organization as it affect not only capital and profit, it also push for adjustments within the organizational level. They said, there is neglected view on the mediating effect of organizational learning capability in the relationship between intellectual capital and new product. From society 5.0, it can be true base on blended system. During industry 4.0, many systems rely on technology and little or no concern place on organizational learning. From point of view of “Kaenzig et al., (2013)” there is implications for marketing strategy which affect customers preference as too much strategy and information about a product instead lead customers into confusion. Also according to “Simonson (1999)” customers do not have clear and stable preferences, even when they have complete information about the characteristics of product because of too much brand products and this is a problem within the organizational planning. Brand nature challenges and pattern right at the level of price and premium benefits affects customer preference. They used Germany electricity scenario to portray this mixed up that affect product design and customers preference

Everything in the industry 4.0 is done by machine and only deliver to customers, so they take a lot of time to actually know the details about products and this is a big problem that doesn't affect only customer preference but organizational products. For everything to be clear, we need a blended system and only society 5.0 can give customers this opportunity.

Products delivery challenges and customers demand. According to “Archetti and Bertazzi (2021)” there is overload on human when it comes to delivery of products and services and this due course a lot time. It is true somehow because delivery services rely mostly on human activities and humans are not robots. We see how logistic industry ha engage with the activities of IoTs to make the warehouse systems flexible. It is very perfect and can greatly help the delivery and circulation of goods and services reach potential customers on due time. With the era of society 5.0 where there’s much debate on blended system. If actually is possible, there is a lot to benefit as human activities and load will reduce and faster delivery services will become visible.

Aspects of technological facilitated change on communication

Communication and technological advancements are like two twins that grow hand-in-hand in the history of mankind. The emergence of internet services, computers, mobile phone, mobile applications, they have propelled communication to become an exceptionally high levels element between humans being interaction nowadays.

Since the art advancement in the invention and use of paper, which led discovery of printing press, human communication have changed and it's still changing today. Following technology development, communication have changed in the following manner

New Communication Style. The innovation and invention of mobile phones have changed in-person communication that allowed more and more people to communicate from any time, different location. communication cost of time schedule, single location points and precessions has drastically diminished by the new systems and this has contributed to the alteration of communication nature. At first people must make a location, time and schedule to communicate. With technology this all has changed. People no long come together making social and emotional attachments drifting off.

Quality Communication. With technological development humans have observed a high quality on their communication. There has been a significantly improved in communication amongst users due to availability and accessibility of helpful knowledge in various software, application, blogs and websites. Information and knowledge is easy and effortless to be accessed by a simple search on the internet using mobile phones and computers. It is currently very possible and easy to get the meaning of unfamiliar terminologies or obtain a translation of a manuscript from unknown to known language using mobile phone and computer applications. Technology has also enhanced post and continue ability, storage and recovery of communication when the need arises.

Price and Efficiency. The introduction of internet , software, application, cluad computing, robots and the option of chatting by sending messages and emails at no time cost and financial lost are probably the most noteworthy influence of technology on communication in recent. The time and energy for writing postal mails and letters have fade away. In the beginning it was extremely difficult to develop a document as time, price, energy and human resource assistance required typing to obtain a fair copy of letter or document.

Accessibility. Nowadays with mobile phone laptop and WiFi people can communicate without barriers. Information and knowledge is very accessible now than before. In those old days documented information was found only on accepted books but today. It Is possible to have information on Google, and other social media environments. It is probably inadequate to say that the influence of technology on communication, without mentioning considerably diminished communication cost. Nowadays information communication is open to everyone. There's no lights or restrictions as to gender, race and sex as it was the case before. Now everyone can communicate at any time without restriction fear and procedure order.

Results and Conclusions

With the technological implementation of automatic identification systems and effective human-data technology exchange in an organizational setting. It is possible to give technology 50% space and 50% human-human interactions. Even though sectors are facing significant pressures from advanced technology to offer high level of service, knowledge and skills of their employees and to reduce cost as well. We seek to identify ways and methods of implementation of system and data exchange technologies that allows human-human interaction.

According to “Aboagye et al., (2021)”, they identify the following social issues associate with online studies ‘accessibility issues, learner motivation, academic issues, generic issues, learner intentions, and demographics. The identify elements that really affect learning can be solved by ReMarkable prototype notebook. ReMarkable Prototype Notebook is a new software that is promising to reduce the gap between humans. With ReMarkable devices young people can still apply the role of a pen in an electronic elements or system. This is a new technology that reminds us especially pupils of need for writing with the hand as opposed to type writing of computer, phone, and many others devices. The ReMarkable prototype notebook gives us good memories of classroom reality, rule of teachers in helping us perfect our writing abilities.

According to “Karimovich, (2021).” he said European policy state that children from 6 to 7 years old ealy education was considered a systematized activity to be carried out in specialized institutions such as kindergartens and preschool education. Following the coming of coronavirus, it is important to think of ways to help this brighter generation study from home with need to maintaining positive mindset on teacher to student relationship. The digital era is shaping minds and there is need to preserve human dignity by creating systems that at least remind or bring humans together. Technology has come to stay. There's need to keep building need for human importance in our everyday lives. Following the outbreak of convid-19, many young people especially pupils of primary and secondary schools that used traditional methods of writing. They have observed an abrupt change in their lives as typing, recording, e-mail and texting become new methods of communication. With all this in mind, there is need to strengthen human to human memory by giving the younger generation the type knowledge and skills of writing using ReMarkable.

Transformation To a Harmonize Society

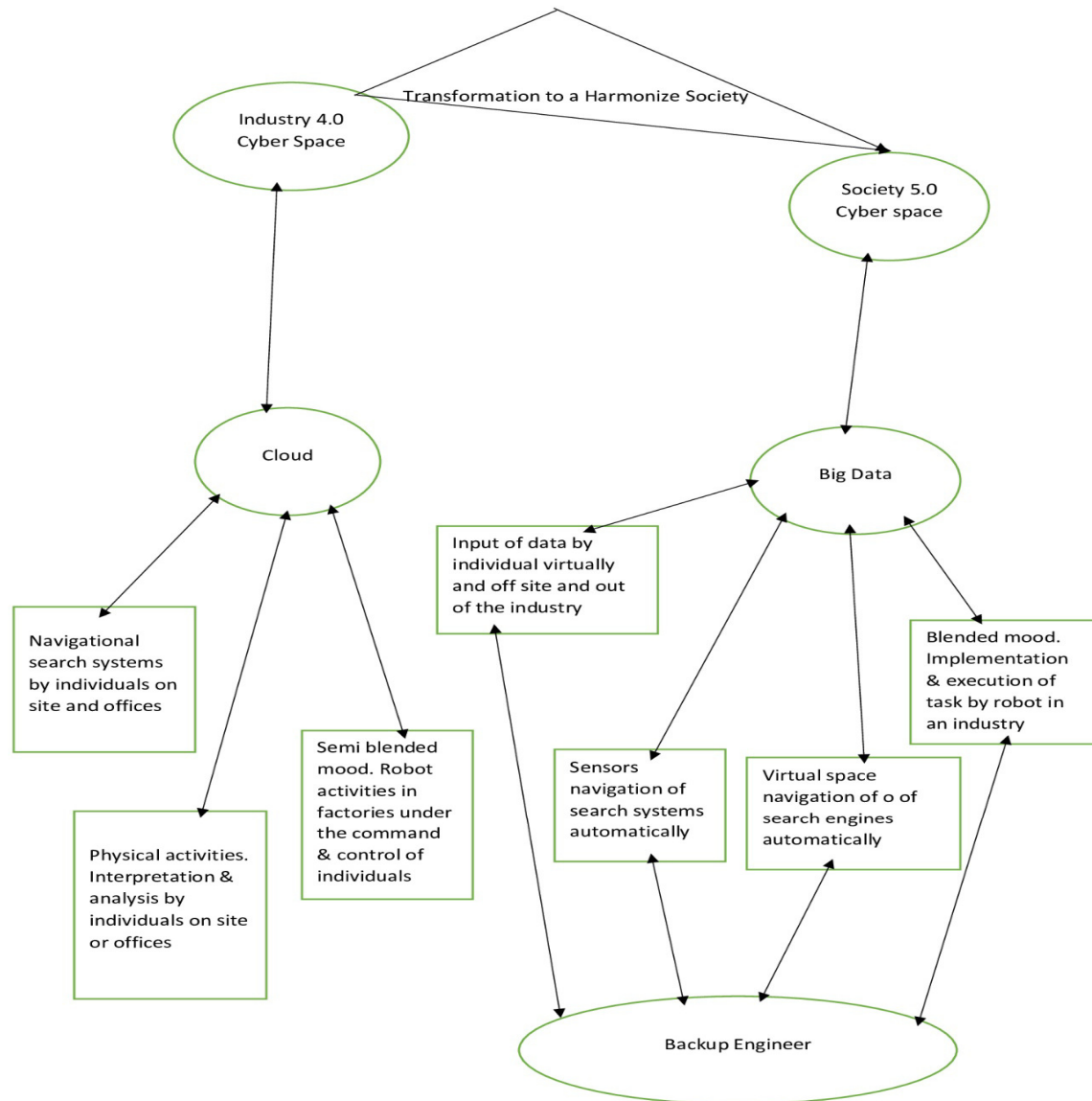


Figure 1.0: Rehabilitation of innovative technology with human activities by Pascal (2021)

According to “Sołtysik-Piorunkiewicz and Zdonek., (2021)” there are still many challenges in creating an appropriate bridge between technological development influence on communication and Society 5.0. For the scholars it necessary to consider some items such as actuators and sensors. Modern logistic system like management model of creation of value, key integration of processes of business, collaboration, and partnering through set of Integrated model-based systems like Warehouse in-transit tracking management fleet systems, Delivery, in-transit tracking management fleet systems and Pre-Fright in-transit tracking management system. Are all system that allows the interaction between system and human. Especially with new developments of working from home. It is possible to allow such systems that will create an environment for at least two to three people management.

To summarize it All

According to “Rahmanto et al., (2021, March)” With large data systems, there is to be an impact on the organization of public sectors in other to enable the storing, safeguarding and analyze different types of information for use in public policies consideration. The system of 'Society 5.0' has emerged to a powerful concept that is refers to as revolution in people's lives, standards, values and many more through the use of technology by taking it to a great level considering the human aspect. The potential for the huge important benefits of big data technology is very interesting to understand that big data can be used for the public policy formulation process but determine by the amount of information. In this regard big data requires big policy information and small data require small public policy information. (Big Data=Big public policy information.

Technology has come to stay. There's need to keep building need for human importance in our everyday lives. Following the outbreak of covid-19, many young people especially pupils of primary and secondary schools that used traditional methods of writing. Abrupt change in their lives as typing, recording, e-mail and texting become new methods of communication. With all this in mind, there is need to strengthen human to human memory by giving them the type of writing using ReMarkable

ReMarkable Prototype Notebook is a new software that is promising to reduce the gap between humans. With ReMarkable devices young people especially primary school students can still apply the role of a pen in an electronic elements or system. This is a new technology that reminds us especially pupils of need for writing with the hand as opposed to type writing of computer, phone, and many others devices. The ReMarkable prototype notebook gives us good memories of classroom reality, rule of teachers in helping us perfect our writing abilities.

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References

- Fukuyama, M. (2018). Society 5.0: Aiming for a new human-centered society. *Japan Spotlight*, 27, 47-50.
- Skobelev, P. O., & Borovik, S. Y. (2017). On the way from Industry 4.0 to Industry 5.0: from digital manufacturing to digital society. *Industry 4.0*, 2(6), 307-311.
- Polat, L., & Erkollar, A. (2020, September). Industry 4.0 vs. Society 5.0. In *The International Symposium for Production Research* (pp. 333-345). Springer, Cham
- Onday, O. (2019). Japan's society 5.0: going beyond industry 4.0. *Business and Economics Journal*, 10(2), 2-7.
- Pereira, A. G., Lima, T. M., & Charrua-Santos, F. (2020). Industry 4.0 and Society 5.0: opportunities and threats. *International Journal of Recent Technology and Engineering*, 8(5), 3305-3308.
- Karimovich, M. S. (2021). Formation of the Image of "I" of Preschool Children on the Basis of Uzbek Folk Tales and Preparation of the Child for School in the Organization of Preschool Education on the Basis of Requirements of Preschool Education. *European Journal of Life Safety and Stability* (2660-9630), 9, 1-4.
- Aboagye, E., Yawson, J. A., & Appiah, K. N. (2021). COVID-19 and E-learning: The challenges of students in tertiary institutions. *Social Education Research*, 1-8.
- Potočan, V., Mulej, M., & Nedelko, Z. (2020). Society 5.0: balancing of Industry 4.0, economic advancement and social problems. *Kybernetes*.
- Ferreira, C. M., & Serpa, S. (2018). Society 5.0 and social development. *Management and Organizational Studies*, 5(5), 26-31.
- de Abreu, M. C. S., & Ceglia, D. (2018). On the implementation of a circular economy: The role of institutional capacity-building through industrial symbiosis. *Resources, conservation and recycling*, 138, 99-109.

- Adler, P. S., Goldoftas, B., & Levine, D. I. (1999). Flexibility versus efficiency? A case study of model changeovers in the Toyota production system. *Organization science*, 10(1), 43-68.
- Loza, J. (2004). Business–community partnerships: The case for community organization capacity building. *Journal of Business Ethics*, 53(3), 297-311.
- Simonson, I. (1999). The effect of product assortment on buyer preferences. *Journal of Retailing*, 75(3), 347-370.
- Archetti, C., & Bertazzi, L. (2021). Recent challenges in Routing and Inventory Routing: E-commerce and last-mile delivery. *Networks*, 77(2), 255-268.
- Sołtysik-Piorunkiewicz, A., & Zdonek, I. (2021). How Society 5.0 and Industry 4.0 Ideas Shape the Open Data Performance Expectancy. *Sustainability*, 13(2), 917.