not just about technologies. Society 5.0 concept is to "promote an increase of job mobility to create an environment where diversified and flexible way of working can be accepted and each and every person can play a lively part." (keidanren outline)
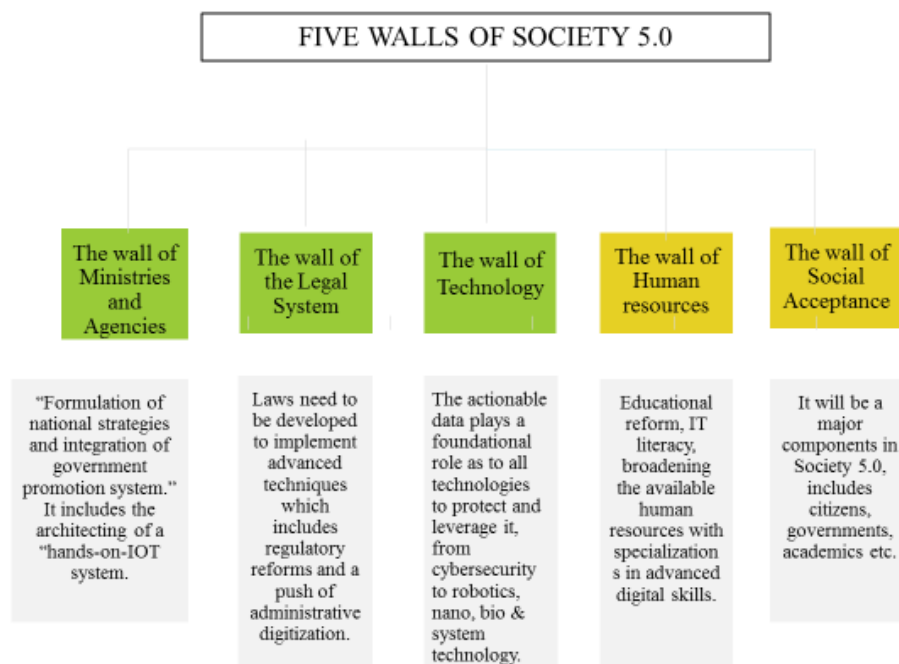
Society 5.0 is an idea that been developed mainly in Japan. It is about promoting user-friendly technologies for the daily living and a better human-machine interfaces. Better the seamless integration of human and machine, the better the ability to adopt technical innovation. Policy makers can encourage companies to provide more training for next-generation manufacturing technicians to make a smooth transformation from one technology to another.

We are still in early stages of a major revolution in the place of work in our social lives, and it will take a long time for our societies to understand, let alone embrace the new meanings that will emerge from future social realities.

The evolutionary aspect of the society 5.0 concept as introduced in the 5th Science & Technology Basic plan of Japan- source keidanren paper.

The five walls to 'break through' in moving to Society 5.0

FIVE WALLS OF SOCIETY 5.0

The wall of Ministries and Agencies	The wall of the Legal System	The wall of Technology	The wall of Human resources	The wall of Social Acceptance
"Formulation of national strategies and integration of government promotion system." It includes the architecting of a "hands-on-IOT system.	Laws need to be developed to implement advanced techniques which includes regulatory reforms and a push of administrative digitization.	The actionable data plays a foundational role as to all technologies to protect and leverage it, from cybersecurity to robotics, nano, bio & system technology.	Educational reform, IT literacy, broadening the available human resources with specializations in advanced digital skills.	It will be a major components in Society 5.0, includes citizens, governments, academics etc.

5. CONCLUSION

This paper examined the latest research on the dynamic workforce and future profession which acknowledged that automation will metamorphose the workplace in ways difficult to imagine. Entirely new jobs will come into the picture based on changing needs of human society and automation in most areas of human activity, some classic jobs that need basic human skills will resolute into the future. Government and business leaders will be liable to form customized policy framework with penetrating strategies, mainly reforming the educational system for the future, to adopt new reforms relating to transition to new digital age, i.e, Society 4.0 or transition of Society 4.0 to 5.0.

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Online Teaching Paradigm Shift during Covid: Blessing or Blight?

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Abstract: In country like India, right to education is one of the fundamental right for all. The introduction of online education having features like robustness has given a scalable pathway to exhibit education during the global pandemic 2020. Keeping in view that learning being an impeccable virtue of life should continue to manifest. This article aims at focusing on the need of emergence of online teaching in parallel to addressing the benefits of the same. It also entails the efforts taken by the government in launching various educational programs to inculcate and preserve the belief of human in gaining knowledge according to the changing era's. The paper also discusses the moderations introduced in the domain of educators and finally concludes by stating the gaps of the online education which yet needs to be taken care.

Keywords: Virtual, Pedagogy, Pandemic, Covid-19.

1. INTRODUCTION

The world came to standstill with a corona virus spreading at deadly rate in all the countries. The world of education faced a completely new picture, painted with the idea of online learning during the global pandemic of 2020.The vision of people getting crowded at a certain place for any means started appearing like a dream after the outbreak of the corona virus. The educators across the globe were forced to shift to the online mode of education keeping behind the traditional classroom teaching.

Before the Covid pandemic the efforts have always been towards combining the technological advancements with the classroom teaching to enhance the learning environment and pedagogical practices and to make the teaching experience more interactive and skill based for the learners. However, keeping in view the spread the deadly virus, online education has been a great support to prevent the wheel of education from stopping. Online education in the past few months have dealt with many critics and rewards. There exists both sections of the society who has been immensely benefitted with the new process of transformation in the education during the pandemic. While on the other hand there are those who have felt left behind in the situation of the crisis. In a country like India where education is considered as a fundamental right of every citizen of the country and a key to open the locks of equitable and universal access to all the doors of social,

mental, economical, professional development of an individual of the country, it is necessary to determine whether the online education can be considered as an alternative in the time of crisis when the face to face online education is not possible in future.

2. METHODOLOGY

The study attempts to explain the effect of the covid-19 on the educator sector in the country India. It emphasis on the role of the virtual learning in ensuring the continuity of the education during the corona crisis and discusses the advantages and disadvantages of the virtual learning in the same regard. For this purpose the information is collected from various government websites, internet, e-newspaper, secondary data, self-observation and discovery.

3. RESULTS AND DISCUSSIONS

In order to access the desired situation and to decide upon the future course of action it is crucial to evaluate the areas where online education has helped to reach the desired outcome in the past few months and also to discuss the reasons which are causing a learning gap in the context of the pedagogical delivery through online education in the recent scenario mainly in the respect of the school teaching.

Tracing from the start, the birth of the online education in India took place in the form of the printing press which was considered as the first technology which made the spread of education and knowledge easy and faster. Six centuries later, the introduction of the Educomp smart classes helped in the removal of the dependence of the education on the books completely and the introduction of the multimedia content to float inside the classrooms and radical change in the traditional methods of teaching such as now the teachers could give the examples of the 3-D representation of the abstract concepts in the classroom. Also, teachers could show various videos, pictures, movies and make the content delivery and learning interactive for the students. Taking into consideration the contemporary digital India concept education accounts a major part of it.

More and more efforts are being taken by the government to strengthen the roots of online education in India such as

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various learning platforms like DIKSHA, SWAYAM; CIET has been developed by the government. Recently with the coming of the new education policy into force on 29th July 2020, throwing light on the recent trends of the developments taken by the government such as the development of National Education Technology Forum (NETF), an autonomous body which is created to provide a platform for the free exchange of Ideas [5].To enhance the technology based idea for the enhancement of learning, assessment, planning, administering for the schools and higher education.

Hence, since decades the government has been making efforts to enhance the online mode of learning. As a result of this during the lockdown when the students were far apart from their physical classrooms, their learning didn't stop as the educational institutions with the help of the power point presentations, assignments, worksheets, quizzes etc kept the learning going on for the students.

A.   *Positive Influence on The Students:*

Fig. 1. Pie chart representing the Positive impacts on the students

• *Removing Place Rigidity*

One of the biggest advantage of online education is that it can accessed anytime from any place which made it the biggest support during the phase of the covid crisis when the traditional classroom teaching with so many kids assembling at one place couldn't possibly take place. This feature of online learning provided the possibility for the teachers and the kids to interact with each other from the due comforts of their homes breaking down all the constraints of geographical boundaries.

Along with that, now the teachers are not only dependent upon the availability of the classroom aids to teach to the students. Even after the availability of the smart boards in the majority of the school, sometimes due to the limitations of the availability of the resources in the classroom like internet it was often difficult for the teachers to access the resources and make them a part of the classroom teaching.

However, with the availability of the internet and the various other online platforms and easy storage and accessibility of the data, resources can be deployed by the teachers from any platform, links to the various learning sites could be easily shared and freely the information could be shared with the students.

The new academic session of 2019-2020 in the schools started with a complete paper less mode of the learning for the kids. The software's like Snap Homework, Microsoft teams, Google Meet, zoom etc has enabled the classroom teaching to take place through the online mode. The ongoing academic session

in the schools completely dependent on the online mode of teaching has been shadowing different influences on the different sections of the society.

• *Enhancing Self Paced Learning*

Online education enabled the kids to learn at their own place as they could easily record the videos and the classes, save the power point presentations and the attached multimedia and could easily review them whenever they faced any doubt. There is no need for any hustle or to be bounded by the timing of the class. The students can take their time to complete the online quizzes and complete the assignments at their own pace. It also helps in developing or enhancing the skill of self-study and discovery among the kids. They feel excited about the easy accessibility of learning resources at the comforts of their homes.

In addition to the academics some students are not tech savvy due to many reasons or still find comfort in the traditional learning mechanism. This virtual mode of learning will bridge the technical gap for them and help them to become technical friendly.

• *Ensuring Continuity*

At the time of the lockdown when continuing school education seemed like a dream, the learning through the online education platforms and the availability of the learning platforms helped to keep the wheel of education keep moving. The academic session could still go on however with a new set of guidelines and a new interface for the students. Central government has launched the PM E-Vidya platform with 12 new DTH channels one for each class to reach out to all strata's of the society. The gap in education in the absence of the virtual learning mode in the present situation would have left students aimless, directionless and would have diminished their learning and growth.

We have no idea till when covid is going to be a part of our lives, in such cases ensuring continuity is not only necessary but needful to keep learning as a routine of the children's lifestyle to ensure that the problems like depression, anxiety, aimlessness, random and negative thoughts do not reach to our kids and even in such gloomy times our kids could have strong mental health.

• *Technological advancement of learners*

The online learning helped the students to become tech savvy as now in order to participate in the learning process they have to come into contact with the learning softwares and gain computing skills apart from gaming and entertainment in the past days. As earlier most of the kids used the smart phones and laptops to play games, listen to music or for other entertainment purpose but online education has made virtual

learning a part of children lives. Earlier for kids learning stopped with the closing of the books and learning was limited to pages of the book content. But now the definition of learning has altogether changed to the better. Kids now have explored the other dimensions of learning and virtual learning has become a habit or an everyday part of their lives preparing them for a better future.

- *Interactive Classrooms*

The regular chalk-duster has taken a back seat during the lockdown. The teachers now have to depend totally on the videos, quizzes, PPT's to deliver the content to the student which has made the learning interactive and more skill based for the students. Giving an example earlier the kids were going through the traditional pen paper test but now they are given the exams by submitting their responses through the Google forms, the kids who earlier were writing long answers are now giving multiple choice answers to concept based multiple choice questions. The responses checked by the Google forms give instant response and allot marks to the kids without any delays. This new learning environment is very good for the development of the learners. Also, for the teachers the workload has reduced in the form of reduced checking work.

- *Dependence On books*

With the coming up of the paperless learning the dependence on the textbooks have reduced. The students are now using more videos, E-books, learning platforms like- Byjus, white hat Jr etc for the learning of the content matter. Now students can learn the same concept from multiple sources enabling the students to have a broader set of mind frame and enhancing the learning environment for the learners. Subjects like social science, students could now learn them through the video, have better understanding from the pictures of the various concepts like burials, soil types, types of forests etc. These practices have made the learning environment more interactive, skill based and dynamic for the learners.

- *Students becoming independent*

Students are now becoming independent learning with the browsing of the open source learning material freely available which in turn is helping them to choose the content according to their learning needs and suitability. They don't have to depend upon the coaching centres as the only available help, rather they could freely access learning resources and guidance on the single click of the mouse and can study from the educator present at any place.

- *Preserving of Information*

Learners as well as teachers could easily save the learning material and could easily revisit anytime from anywhere according their own individual needs and learning

requirements. Like the traditional classroom teaching students don't have to suffer if they are not able to end the class for any reason as the recorded classes, links, videos could be easily shared and circulated among the kids[1].

This in-turn has also enhanced the self-paced learning among the kids as they could learn easily from the recorded videos, could pause them and revisit them whenever there is some confusion or lack of understanding of a particular concept acting as digital book for the learners.

- *Diversity*

With the learning platform going global, for a single concept students can access hundreds of the videos. With the availability of the diverse resources, the dependence of the students on the traditional teaching has reduced. Rather than the paper pen test the mode of evaluation and assessment have changed. Even the choices of the questions for assessment are shifted to multiple choice questions than long answers making learning more concepts oriented.

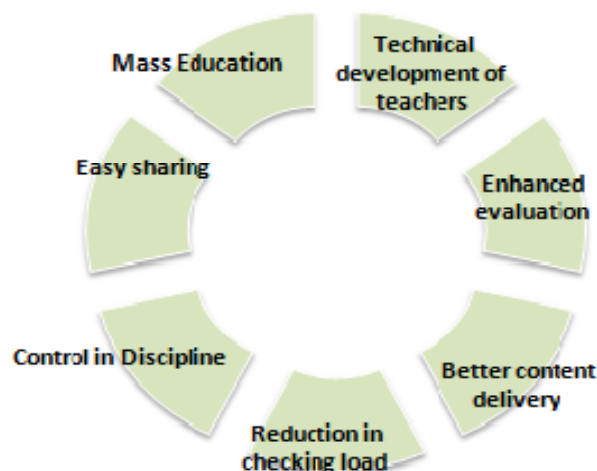### B. *Positive influence on teachers*

Fig. 2. Pie chart representing the Positive impacts on the teachers.

- *Technical development of teachers*

With the total dependence on the online teaching, the teachers are also engaging themselves in learning the new educational software's, browsing the educational content, learning new tools for the online educational assessment and evaluation. This enabled the teachers to enhance their technical skills even when they were hesitant to. The elimination of the tremendous checking work provided the teachers the ability to make time for the same. Also, to enhance the skill set in the changing times schools are also running many online courses and workshop to enhance the skill set of their teachers making

them technologically sound. This has made the schools realize that being digitally skilled in the need of the future education era and also an essential requirement for the appointment of the teachers in the future.

• *Enhanced evaluation*

The scope for errors always exists. However, the automatic evaluation of the answers in the Google forms has helped in reducing the checking errors of the large manuscript by the teachers. Without the fear of abundance of checking work teachers can now conduct more tests and have better assessment of the learning content. This will not only ensure better results but also ensure that the students are able to receive the learning of the content without any biasness.

• *Better content delivery*

Teachers are now able to enhance the learning experience for the learners as now they could use the easily available videos, pictures etc with the learners. Teachers now don't have to depend only on the books. Teaching with the help of power point presentations help the teachers to use specific and important content from the books which help the learners to learn in an effective as well as efficient manner. Unlike normal classroom teaching, teachers could spend more time in explanation than dictating notes which can now be easily shared and circulated. The power point presentations can be recorded and saved without any need for hustle and can be reviewed by the learners as per their own convenience.

• *Reduction in checking load*

With virtual notes, power point presentations, electronic evaluation and electronic report cards the checking work of the teachers have tremendously reduced which usually was considered as a time consuming work for the teachers. Now, they could spend more time and energy in improving the teaching –learning experience by including more content related videos, pictures, live examples, quizzes etc.

• *Control in Discipline*

Discipline problem can now be managed in a better manner over the online teaching. The availability of features like mute buttons, hand raise etc helps in controlling the volumes and disturbances over the online teaching. Teachers do not have to repeatedly ask the kids to keep quiet in turn leading to more focused and smooth teaching process.

• *Easy sharing*

Without any hustle the learning content could easily be sourced, created, shared and accessed at the comforts of the home both by the learners as well as teachers. This helps the learners as well as the teachers to keep a record of how much

has been taught and from where to start the next day. If a child is not able to attend the class, the parents could easy catch up from the next day by revisiting the online recorded class of the missed lecture.

• *Mass Education*

In a traditionally classroom teaching, the teacher has to keep a check and a limit over the number of the students who can attend the classes. Teachers can easily reach out to a larger number of people as compared to those in a physical classroom.

Hence, it could be easily understood from the above discussion that the online mode of education has acted as a strong pillar in ensuring the continuity of learning during the time of corona crisis. However, since it has been for the first time that the mode of education has only been virtual and hence in adapting and carrying out the virtual learning many learning gaps and concerns have come out on the surface which to many extents are stopping the virtual learning to become an independent source of learning reality for many.

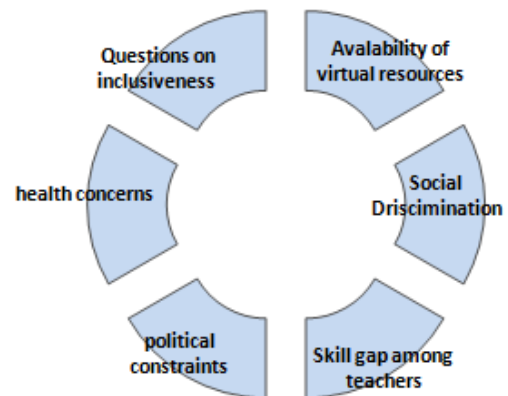**C.   Learning gaps with virtual education**

Fig. 3. Pie chart representing the pitalls

• *Availability*

Before online education comes to rescue it is important to determine that do we all have the facilities available for it. About three-fourth of the students in India do not have the access to the internet services according to the 2017-2018 NSO survey [3]. For the online education to serve its purpose it's very important to ensure the availability of the internet, electronic gadgets like laptops, smart phones, or even radio or TV.

In a country like India where poverty is such a big issue it is very difficult to ensure that if we teach only through the

electronic medium in such time of crisis, are we able to reach to all the students in the different areas of the world. Statistically, only 23.8 percent of the households of students in India have internet access and in urban areas, 42 percent of households have access to the internet as compared to 14.9 percent in rural areas raising the argument that online education is serving the needs of the chosen [4]. Such situation raises question on the availability of the equal educational opportunities for all the students. Not only the students the teachers who are not financially sound could not make the necessary arrangements for all successful delivery of the content through virtual mode. Hence, it is important for the government to intervene and ensure that no one is left out and all get equal opportunities to learn.

- *Social discrimination*

In India, students have been facing social barriers from a long time ago. The discrimination on the basis the basis of the gender and economic condition is worse of all. In rural areas the girls are expected to do the household work in the morning rather than studying and the boys are considered to work on the farmlands than to study. Also, in cases of opportunity to study in conservative families boys are still given the first place and the continuity of girls getting education still gets paralyzed in such situation. Moreover, in many places girls are not allowed to watch the educational programmers.

- *Skill Gap*

In the Indian schools, teachers are mostly hired on the basis of their educational degrees and not primarily on their technical knowledge or capabilities. At the time of immediate onset of the lockdown there was a situation of hustle and the schools were technically not prepared to handle such a situation.

In such scenario where the teachers are hired from more than 30 years are not very acquaint with the new educational technology. The senior teachers still feel comfortable in teaching the students with the help of chalk and duster than power point presentations. Hence, it is very important that the teachers are given regular trainings and also should be made sure that even in the normal times they make the use of technological tools so that virtual learning is not out of practice. At the times of hiring computer literacy should be made eligibility criteria so that the teachers in the future are fully skilled and technically ready to handle such crisis.

The technical unpreparedness on the part of the school cause a financial jolt to the schools itself. The parents were not satisfied with the quality of virtual teaching and were hence not willing to pay the school fees. Thus, learning from the pandemic and realizing the virtual learning as a rescue, it should be made sure that schools keep themselves prepared so that the quality of education does not suffer.

- *Political constraints*

In India parents consider physical presence of the children in the school as an assurance that the kid is learning. Taking the same concept into account, the parents were not ready to pay the school fees as they didn't considered virtual education as the real education and also were not satisfied with the quality of the online education transacted by the schools. In such a situation school administration, political leaders, administration was only giving importance to the fees without focusing on improving the quality of education or addressing the issue in the right manner.

- *Health concerns*

When the complete dependence over the virtual mode of learning resulting into complete dependence over electronic gadgets like mobiles and laptops the screen time was for the kids have really gone up leading to eye related problems, restlessness, anxiety, headaches among the kids.[2] Considering the same the classes for the kids below class 3 stood cancelled. However, in such situation there is need to search for a better alternative. With the kids being caught up at homes, the physical activities of the kids is totally zero affecting their physical, mental and emotional health.

- *Question on inclusiveness*

In order to facilitate inclusive education, each class had 25% of the students from the economically weaker section. Now, during the online classes these students are the most vulnerable as they do not have the access to smart phones, laptops or even the basic electricity service throughout the day. Thus, it is important that schools prepare and create some special arrangements for such kids by extending financial support or personalized attention by the teachers. Also, arrangements should also be made for the children with the special needs as they also need personal and special attention by the teachers. Thus, for the virtual learning to become a reality or a complete rescue for the face to face learning in the future these issues needs to be addressed.

4. CONCLUSION

We can clearly conclude that online education has played a big role in ensuring the continuity of knowledge sharing at the times of crisis. However, we could not consider online education as a complete replica for face to face teaching. In order to ensure that the quality of education does not suffer, we need to address the issues such as availability of resources for all the people so that the benefit from the education could reach to all. The poor, economically weaker section, disabled is not marginalized ensuring the right to education for all. Till this basic feature is not achieved, virtual learning cannot become a reality in the true spirit. The discrimination and the attitude change are truly very important to be bought in the

society. The most important aspect is to learn and the learning through the virtual platform is equally as important as the learning from face to face, no doubt the quality can always be improved with the dynamic technological advancement.

Once, we accept virtual and distance education as equal to face to face learning for it to achieve its true recognition. Also, the schools need to enhance skill set of the existing teachers through the continuous workshops and trainings acquainting them with the new softwares. Also, in the future teachers should encourage the submission of the assignments through the digital platforms like Google classroom etc so that even during the normal times kids are comfortable with the use of the technology. Schools should conduct workshops for the students in the future over the digital platforms and especially during the summer holidays, students are encouraged to submit their projects including videos, presentations over the virtual platform. This will not only ensure the gradual improvement in the quality of virtual education but also incorporate virtual learning as a part of everyday lives of the future kids so that at times if face to face education cannot take place switching over virtual learning is not accompanied with sudden hustle and confusion.

To ensure that the future teachers and academicians are thoroughly skilled to incorporate the virtual learning as part of our everyday lives, Government and more private institutions should work on enhancing the capacity building workshops to upgrade the skills of the teachers with which the quality of education could enhance. Also, in order to protect the kids from the adverse effects of sedentary lifestyle and increased screen time there is a need to increase awareness on the indoor physical activities like yoga, painting, aerobics which can benefit the kids and address the health issues.

Once, the following issues are addressed we can easily consider virtual learning as a reliable and dependable form of education even in the future when our world is free from the pandemic and making the dream of digital India a reality.

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