**Education Strategies for Education5.0:**

**Emerging Perspective and trends for Future of learning**

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Abstract

 We are **living** **in the** **most** **uncertain** time in history.  Staying **on the** **pinnacle** is getting **painstaking** and **extra** **distressing** **not** **only** **because of** the fast-**developing** and changing **virtual** **technology** and AI-**based** **solutions** **but** **also** pandemic **impact** on all the fields  of life.  We are at the brink of Industry4.0 as pointed out by the scholars and researchers. They as well talk about different themes of Education 5.0 which have become the focus of discussions of conference proceedings, forums, and symposiums which means that over the next decade, everyday life is going to change dramatically. With such extensive change coming, education stakeholders must decide how they want to position themselves and their institutions for the future. To adapt to upcoming challenges that the education transformation will bring about, this paper will present different perspectives and trends developed by researchers for use in Education 5.0 It will also enlist and discuss the pioneers who have adopted such trends. This paper will give an insight into the strategies and techniques that are required for achieving the objectives of Education 5.0 Finally the impact of Education 5.0 on the educational service will be discussed and believe those insights discussed in the paper will be the focus of many upcoming education strategies research studies

Keywords: Education 5.0, perspectives, strategies, education transformation

**1. INTRODUCTION**

 We are living in the most  uncertain times in History  when change has never been so rapid or unpredictable. Pandemic waves sequence cannot be considered as the only factor bringing about drastic change in the human lives, other major contributor is . Industry 4.0 which focuses on creating cyber-physical systems that is the trending technologies like automation, robotics and others penetrating at an accelerating speed disrupting every sphere of human lives. Though as mentioned in forums, blogs and conferences by scholars and futurists in their discussions we are at threshold of Industry4.0 , many even have also started to discuss and put forth various vision for Industry 5.0,we need to rethink about the ways in we would adapt to these period of transition. One of the theme being discussed is as to how revamping Industry4.0 traits, Society 5.0 will emerge with the concept of Industry 5.0 which will further lead to Education 5.0 during this transition period we aren’t certain as to how education transformation will take place but it will impact the way education is imparted, hence it becomes important that to study how educators need to rethink and equip with new ways of interacting, thinking, working as well as learning The concept of Industry 4.0 begin 2011, thereafter its visibility in other areas including Education emerged. We can come across some research studies and conference on Education 4.0 . What we need is Education 5.0 and we find a few studies related to it as the concept started floating recently (2018 ) Hence for **educational** transformation to have a profound long-**time period** impact, we have to **deal with** it from the perception  of the Industry 5.0

In next section the paper talks about Evolution of Education system to Education 5.0 followed by Analysis on future of Education research focuses on emerging perspective and trends that will shape the education in coming years. In addition it also enlists exemplary models illustrating how future possibilities described have began to play out today. Next section discusses education strategies for educationists to be equipped with in unfolding era ahead. Concluding part of the paper provides insights for further scope of research.

**2. Education 5.0**

As Industrial Revolution progressed from 1.0 to 5.0 so do Education Revolution corresponding surfaced with different focus as depicted in Table -1

 Table-1 Evolution of Education 5.0

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Education 1.0- Teaching

Education 2.0 Research

Education 3.0- Community Sevice

Education4.0 Innovation

Education 5.0 Industrailisation & Personalisation

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 About Education 5.0

Education 5.0 is the percolation of concept industry 5.0 (Rada 2018) Education 5.0 is not about smart technology and the machine’s capability to do what people can do; rather it is about what humans can do well rendered by smart technology and machines. Education 5.0 focus is on personalized education systems, emphasizing on human values, cultivating 4C’s of 21st century skills, mindful of their mental, physical health as well as safety with related to their interaction with technology, digital learning tool acts as facilitator

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**3. Emerging perspective and trends:**

“If we teach today’s students as we taught yesterday’s we rob them of tomorrow.”  (John Dewey,1944)Dewey’s observation being so relevant that it is often mentioned in many of the discussions about relationship between industry, education and economy take place till this date.

 Following section of the paper highlights the key outcome of analysis based on findings, report, forecast undertaken by researchers, futurists, scholars and organizations related to future of learning which can be suggestive course of action for reshaping education as well as ways to address new or deepening challenges in this emerging complex era for education stakeholders

3.1. Classification of emerging challenges:

Post analysis of different work it was observed that future concerns that have popped up are of different type and can be classified as below to get the better perception

3.1.(A) Related to new industrial environment:

Detection of issues provides an analytical base for developing curricula for the new industrial age . New industrial age issues relates to the rampant growth of digit technology and therefore for industry to perform better and at the same time minimize energy consumption find it difficult to search for new technologies, new blueprint, new structural planning, new communication and data storage concepts, as skill necessities are changing along with tech innovations industry struggles in search of extremely skilled, flexible, socially as well as emotionally intelligent professionals who are problem solvers too. And few other traits as reflected in Table1

 Table 1 Challenges related to new industrial environment

New industrial age issues pertains to findings new ways to perform better and at the same time minimize energy consumption with tech advancements

 Talent shortage in the industry with exponential growth of digit technology

Reforming curricula is a considerable challenge, implying complex decision-making processes and various administrative obstacles.

Keeping pace with the unprecedented change and developing a future –proof curriculum is an arduous task for education service to cope up

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3.1. (B) Challenges arising due to major societal shifts in future:

Over the next decade, phenomenal   advances in digital technologies will require us to reconsider our relationships with one another, with our institutions and even with ourselves. While many changes have the potential to influence education over the course of the next decade, five will be critical for understanding the profound challenges and opportunities facing it.

AUTOMATING CHOICES Artificial intelligence and algorithms are automating many facet of our existence.

CIVIC SUPERPOWERS Busy citizens and civic associations are seeking to rebalance authority. ACCELERATING BRAINS People have growing access to tools and insights that are redesigning our brains in intended and unintended behaviors.

TOXIC NARRATIVES Outmoded and uneven approaches and benchmark of success are contributing to persistent health issues, including increasing rates of mental illness among children.

REMAKING GEOGRAPHIES Migration patterns, small-scale production and attempts to grow place-based and cultural resources are mingling to remodel local geographies in reaction to economic transition and climate unpredictability.

Table -2 displays for each of five drivers of change that will influence education over the next decade as stated above key questions which induces initial signal to ponder upon

 Table-2 Five Drivers of Change: Key questions to ponder

Automating Choices The hurdle is to expand tactics for use of artificial

 intelligence in gaining knowledge without sacrificing

 pupils and educator organization or deepening inequity

Civic Superpowers- By which methods can tech-enabled civic responsibility

 remodel educational authority and management is

 the alarm raised

Accelerating Brains- The concern which will bother educations: Will pupils

 be able to maintain their rights in deciding when and how

 to use new cognitive devices while also maneuvering new

 anticipations of performance in education

Toxic Narratives- For new metrics to be successful constant distraction such as racial discrimination, bigotry and economic disparity will have to to be dealt with

Remaking Geographies How education will play a headship role in helping cities,

Towns and rural groups to discover new signature individuality is issue to be tackled.

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3.2. (A) Strategies for coping in emerging Education 5.0

Getting to Education 5.0 necessitates a **holistic educational renovation** and involves attending to all the appropriate essentials. In addition to technology, the elements that needs to be addressed include

 **i)Strategy**: redefining main intention and precise aims of educational plans in the context of Education 5.0

ii)**Collaboration**: Endorsing procedures that move beyond the usual institutional collaboration modelsand connecting individuals and societies and particularly creating efficientlearning environments that connect all main stakeholder groups;

**iii)Content**: Discovering, escalating and initiating content that matches to the Strategy component

 **iv)Learning environment**: Building a learning environment that fulfills the precise aims of the Strategy element (e.g. approaches motivating multidisciplinary course design thinking, team spirit, communal problem-solving, risk-taking actions, investigational methodology etc.);

**v)Delivery mechanisms**: Distinguishing which tools are best match for attaining the aims of the Strategy element; this is where technology may or may not be selected as the most suitable deliverance device;

**vi)Assessment and acknowledgment**: Searching and make available suitable formal and informal methods of assessment and acknowledgment for Education 5.0; and

**vii)Quality promise**: Picking up precise quality norm for Education 5.0 and operating constant quality scrutinizing.

2.(B)In the background of job instability, Education models must acclimatize to provide children with the skills to generate a more inclusive, interconnected and industrious world.

Eight significant outlook in learning content and practices can be adapted to bring in such transformation which includes:

* Global nationality skills

To include content that concentrates on developing awareness about the broader world, sustainability and performing a dynamic role in the global community.

* Innovation and creativity skills

To incorporate content that promotes skills needed for innovation, comprising of multifaceted problem-solving, analytical thinking, creativity and systems-analysis.

* Technology skills

To add in content that is based on growing digital skills, including programming, digital accountability and utilization of technology.

* Interpersonal skills

To incorporate content that concentrates on interpersonal emotional intelligence (i.e. empathy, cooperation, negotiation, leadership and social awareness

* Personalized and self-paced learning:

Move from a system where learning is uniform, to one build on the different individual needs of each learner, and flexible adequate to facilitate each learner to make progress at their own tempo

* Accessible and inclusive learning:

Shift from a system where learning is restricted to those with access to school to one in which everyone has access to learning and is therefore inclusive

* Problem-based and collaborative learning:

Shift from process-based to project- and problem-based content deliverance, involving peer collaboration and more intently illustrating the future of work.

* Lifelong and student-driven learning:

Shift from a system where learning and skilling diminish over one’s lifespan to one where everyone constantly get better on prevailing skills and obtains new ones build on their individual needs.

3.2(C) To begin responding to the changing landscape as per the drivers of change following areas need to be considered with a view to take strategic action for reshaping education:

* Design for equity, Priortise Human development, Distinguish between efficiency and transformation, lead with inclusive governance, Protect student dignity and Community well being, Develop new terms and condition for technology use

3.3.(A) Enlisting of Exemplary Models following the future path today:

The pioneers who are following the path of future being proactive have been enlisted post identifying from the research

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STIMULATIONS FOR THE FUTURE OF LEARNING:

 As the drivers of change open up and come together over the next decade, they will offer options to visualize new kinds of educational system, programs, organizations and functions that take action to the changing backdrop.

As depicted in the Table-3 If education institutions take collaborative action to respond to the changing backdrop, the following zones could emerge and probably newer ones may get added. Zones cluster into four themes and within each theme four provocations demonstrate precise future probabilities. Furthermore, Signals of change shown in column-2 in the table demonstrate how some of these future probabilities described in the stimulations are beginning to play out today.

Table-3 STIMULATIONS FOR THE FUTURE OF LEARNING

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

SIGNATURE LEARNING NETWORK(Theme-1)

Locate learning in place in ways that integrate technology, culture and learner and community individuality to develop and expand opportunities for learning.

FUTURE POSSIBLITIES SIGNALS OF CHANGE

|  |  |
| --- | --- |
| * COMMUNITY NETWORK BUILDER

 * NESTED LEARNING
* EDUCATIONAL PLACEMAKING
* MIXED REALITY LEARNING PARKS
 |  CÍRCULOS - comejoincircle.org  DUBAI’S MIXED-REALITY THEME PARK [www.vrparkdubai.com/](http://www.vrparkdubai.com/) GIVE AND TAKE PROJECT  realworldscholars.org/our-programs  I PROMISE SCHOOL lebronjamesfamilyfoundation.org  PLACE NETWORK Tetonscince.orgKnowledgeWorks.org |

HUMAN-CENTERED LEARNING (Theme-2)

Reestablish teaching and learning Structure, potentials and practices to put a holistic view of human development at the nucleus.

 FUTURE POSSIBLITIES SIGNALS OF CHANGE

|  |  |
| --- | --- |
| * DESIGNING FOR THE CORE
* FULL-SPECTRUM ASSESSMENTS
* COGNITIVE FITNESS PROTOCOLS
* NEUROLEARNING INTEGRATOR
 |  FAIRTEST fairtest.org/university HOMIES EMPOWERMENT SCHOOL- homiesempowerment.coMAKING CARING COMMON PROJECTmcc.gse.harvard.eduTHE SCIENCE OF LEARNING AND DEVELOPMENT-turnaroundusa.org |

SAFEGUARDS FOR EFFECTIVENESS (Theme-3)

Offer visualization and stewardship for employing effective data strategies and for adopting emerging technologies for deliberate learner backing

FUTURE POSSIBLITIES SIGNALS OF CHANGE

|  |  |
| --- | --- |
| * FOLLOW-ME SCHOOLS
* DATA ASSET ADVISOR
* AI ETHICS COOPERATIVES
* MACHINE LEARNING AUDITS
 |  DATA STEWARDS good. datastewards.netNEW LAWS FOR DATA PROTECTION THE RIGHT TO DISCONNECT newatlas.com/right-to-disconnect-after-hours- work-emails/55879 SOCOS LAB www.hrmagazine.co.uk/article-details/the-hidden-tax-on-being-different |

AMPLIFIED VOICE AND IMPACT (Theme-4)

 Reconfigure commitment and finale outlines and communications routes to reinforce individual ability and to increase community influence

FUTURE POSSIBLITIES SIGNALS OF CHANGE

|  |  |
| --- | --- |
| * MACHINE LEARNING OPEN EDUCATIONAL RESOURCES
* EDUCATION SOCIAL IMPACT SCORECARDS
* AI EDUCATOR SUPPORT BOT
* AMPLIFIED STUDENT GOVERNMENT
 |  AI4ALLai-4-all.orgOPEN SOURCE AIAopensource.com/article/18/5/top-8-open-source-ai-technologies-machine-learning#NEVERAGAIN MOVEMENT blogs.edweek.org/edweek/rulesforengagement/2018/05/student\_activists\_gun\_violence.html REINVENTING COMMUNITY SCORECARDSash.harvard.edu/files/ash/files/citizen\_voices\_community\_solution |

3.3(B)Schools of the Future

 Having stated the urgent need for stakeholders to co-create education systems that bring on children’s future wants, the experiences of a series of pioneering education organizations—“Schools of the Future”—may provide encouraging instances to guide the alteration to Education 5.0 globally.

Instances given below are the ones which can be considered as pioneers for emerging Education5.0

* Global Citizenship Skills - Creating a Generation of Future Green Leaders- Example :Indonesia Green School
* Innovation and Creativity: Combining Hard and Soft Skills to Create the Next Generation of Innovators - Example-Canada The Knowledge Society
* Technology Skills: Pioneering a new representation for promoting Technology Skills- Viet Nam TEKY STEAM
* Interpersonal Skills: Forming a Global Community of Learners through Virtual Cultural Exchange- Example Spain iEARN:
* Personalized and Self-Paced Learning;

India Pratham’s Hybrid Learning Programme: Local Communities were empowered to Support Student-Centred Learning Pratham, is one of the leading non-governmental organizations in India, established in 1995 devoted to refining the quality of education in India by complementing the work of schools. Pratham introduced its digital initiative in 2015- the Hybrid Learning Programme, a community-driven approach which provides education to over 90,000 children in the age group of 10 to 14 years in about 1,000 villages in India.

**4.CONCLUSIONS**

The changes on the sphere recommend a chance for education organizations, community organizations, students and families to put human achievement and people’s communal well-being at the center of learning. There is an pressing need to renew education systems to prepare children with the skills to steer the future of work and the future of societies. As discussed in above sections of the study the emerging trends and strategies to adapt in Education 5.0 provides a visualization for how school systems can be reorganized to bring on children’s future needs. This alteration calls for changes in learning content to include both the technical and human-centric skills needed to make emergent and all-inclusive economies and societies and changes in learning experiences that more intimately reflect the future of work. All the concerns discussed are prone for further discussion, investigation, experimentation, it has led to open avenues for a wide range of research.

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