(Track 4 – General Management)

**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 at the top is getting arduous and more demanding not only due to the fast-growing and changing digital technologies and AI-based solutions but also pandemic effect on all areas of life. We are at the brink of Industry4.0 as pointed out by the scholars and researchers. And they as well talk about different themes of Education5.0 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 . Indusstry 4.0 which focuses on creating cyber-phsical 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 [1] 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 bcomes 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 Indusrty 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-term impact, we need to address 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 iillustrating 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 Industrail Revoltion 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 Reseach

Education 3.0- CommunitySevice

Education4.0 Innovation

Education 5.0 Industrailisation & Personalisation

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What is 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 humans do; rather it is about what humans can do well rendered by smart technology and machines.Education 5.0 foucs is on personalized education systems,emphasaizing 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

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 poped 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 pertains to the exponential growth of digit technology and therefore for industry to perform better and at the same time minimize energy consumption find it difficult to look for new technologies, new designs, new architectures, new communication and data storage concepts, as skill requirements are changing along with tech advancements Industry strives in search of highly skilled, flexible, socially and emotionally intelligent professionals who are problem solvers as well. And few other 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, exponential advances in digital technologies will require us to redefine 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 aspects of our lives.CIVIC SUPERPOWERS Engaged citizens and civic organizations are seeking to rebalance power.ACCELERATING BRAINS People have increasing access to tools and insights that are reshaping our brains in intended and unintended ways.TOXIC NARRATIVES Outdated and misaligned systems and metrics of success are contributing to chronic health issues, including rising rates of mental illness among children.REMAKING GEOGRAPHIES Migration patterns, small-scale production and efforts to grow place-based and cultural assets are combining to reshape local geographies in response to economic transition and climate volatility.

Table -2 manifests for each of five drivers of change that will impact education over the next decade as stated above a key questions prompts initial reflection to ponder.

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

Automating Choices The challenge is to develop strategies for using artificial

intelligence in learning without sacrificing student and

educator agency or deepening inequity

Civic Superpowers- In what ways can tech-enabled civic engagement reshape

educational governance and decision-making is the

concern raised

Accelerating Brains- The issue which will haunt educations: Will learners be

able to retain their rights in deciding when and how to use

new cognitive tools while also navigating new

expectations of performance in education

Toxic Narratives- For new metrics to be successful persistent challenges such as racism, sexism and economic inequality will need

to be addressed.

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

Towns and rural communities to find new signature identities is issue to be addressed

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

Getting to Education 5.0 requires a **holistic educational transformation** and implies addressing all the relevant elements. Besides technology, the elements that need to be addressed include **i)Strategy**: redefining key purpose and specific objectives of educational offers in the context of Education 5.0

ii)**Collaboration**: promoting practices that move beyond the typical institutional collaboration patternsand engaging individuals and communities, and specifically creating effectivelearning ecosystems that engage all key stakeholder groups;

**iii)Content**: identifying, developing and introducing content that corresponds to the Strategy element (including a good balance of technical and non-technical disciplines, paying special attention to the questions of ethics, social inclusion, diversity and sustainability etc.);

**iv)Learning environment**: creating a learning environment that best serves the specific objectives of the Strategy element (e.g. approaches stimulating multidisciplinary orientation, design thinking, team spirit, collective problem-solving, risk-taking behavior, experimental approaches etc.);

**v)Delivery mechanisms**: identifying which tools are best suited for achieving the objectives of the Strategy element; this is where technology may or may not be chosen as the most appropriate delivery mechanism;

**vi)Assessment and recognition**: exploring and developing appropriate formal and informal ways of assessment and recognition for Education 5.0; and

**vii)Quality Assurance**: developing specific quality criteria for Education 5.0 and performing continuous quality monitoring.

3.2.(B)In the context of job disruption, Education models must adapt to equip children with the skills to create a more inclusive, cohesive and productive world. Eight critical characteristics in learning content and experiences can be adapted to bring in such transformation which includes:

* Global citizenship skills

To include content that focuses on building awareness about the wider world, sustainability and playing an active role in the global community.

* Innovation and creativity skills

To include content that fosters skills required for innovation, including complex problem-solving, analytical thinking, creativity and systems-analysis.

* Technology skills

To include content that is based on developing digital skills, including programming, digital responsibility and the use of technology.

* Interpersonal skills

To include content that focuses 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 standardized, to one based on the diverse individual needs of each learner, and f flexible enough to enable each learner to progress at their own pace.

* Accessible and inclusive learning:

Move from a system where learning is confined to those with access to school buildings to one in which everyone has access to learning and is therefore inclusive

* Problem-based and collaborative learning:

Move from process-based to project- and problem-based content delivery, requiring peer collaboration and more closely mirroring the future of work.

* Lifelong and student-driven learning:

Move from a system where learning and skilling decrease over one’s lifespan to one where everyone continuously improves on existing skills and acquires new ones based 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,Distnguish between efficiancy 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 og Exemplery 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.

PROVOCATIONS FOR THE FUTURE OF LEARNING:

As the drivers of change unfold and combine over the next decade, they will present opportunities to imagine new kinds of educational practices, programs, structures and roles that respond to the changing landscape. As depicted in the Table-3 If education institutions take concerted action to respond to the changing landscape, the following zones could emerge and probably newer ones may get added. Zones cluster into four themes and within each theme four provocations illustrate specific future possibilities Moreover, Signals of change shown in column-2 in the table illustrate how some of these future possibilities described in the provocations are beginning to play out today.

Table-3 PROVOCATIONS FOR THE FUTURE OF LEARNING

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SIGNATURE LEARNING ECOSYSTEMS (Theme-1)

Situate learning in place in ways that integrate technology, culture and learner and community identity to enhance and extend opportunities for learning.

FUTURE POSSIBLITIES SIGNALS OF CHANGE

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

HUMAN-CENTERED LEARNING (Theme-2)

Reorient teaching and learning systems, expectations and experiences to put a holistic view of human development at the center.

FUTURE POSSIBLITIES SIGNALS OF CHANGE

|  |  |
| --- | --- |
| * DESIGNING FOR THE CORE * FULL-SPECTRUM ASSESSMENTS * COGNITIVE FITNESS PROTOCOLS * NEUROLEARNING INTEGRATOR | FAIRTEST  [www.fairtest.org/university/optional](http://www.fairtest.org/university/optional)  HOMIES EMPOWERMENT SCHOOL  [www.homiesempowerment.co](http://www.homiesempowerment.co)  MAKING CARING COMMON PROJECT  mcc.gse.harvard.edu  THE SCIENCE OF LEARNING AND DEVELOPMENT  [www.turnaroundusa.org](http://www.turnaroundusa.org) |

SAFEGUARDS FOR EFFICACY (Theme-3)

Provide vision and stewardship for implementing effective data strategies and for embracing emerging technologies for intentional learner support.

FUTURE POSSIBLITIES SIGNALS OF CHANGE

|  |  |
| --- | --- |
| * FOLLOW-ME SCHOOLS * DATA ASSET ADVISOR * AI ETHICS COOPERATIVES * MACHINE LEARNING AUDITS | DATA STEWARDS  good. datastewards.net  NEW LAWS FOR DATA PROTECTION  [www.zdnet.com/article/gdpr-an-executive-guide-to-what-you-need-to-know](http://www.zdnet.com/article/gdpr-an-executive-guide-to-what-you-need-to-know)  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 engagement and outcome frameworks and communications channels to bolster individual capacity and to increase community impact.

FUTURE POSSIBLITIES SIGNALS OF CHANGE

|  |  |
| --- | --- |
| * MACHINE LEARNING OPEN EDUCATIONAL RESOURCES * EDUCATION SOCIAL IMPACT SCORECARDS * AI EDUCATOR SUPPORT BOT * AMPLIFIED STUDENT GOVERNMENT | AI4ALL  ai-4-all.org  OPEN SOURCE AIA  opensource.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 SCORECARDS  ash.harvard.edu/files/ash/files  /citizen\_voices\_community\_solutiion |

3.3(B)Schools of the Future

Given the urgent need for stakeholders to co-create education systems that deliver on children’s future needs, the experiences of a range of pioneering education institutions—“Schools of the Future”—may provide inspiring examples to guide the transition to Education 5.0 globally.

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

India Pratham’s Hybrid Learning Programme: Empowering Local Communities to Support Student-Centred Learning Pratham, established in 1995, is one of the largest non-governmental organizations in India, dedicated to improving the quality of education in India by supplementing the work of schools. In 2015, Pratham launched its digital initiative, the Hybrid Learning Programme, a community-driven approach which serves over 90,000 children ages 10 to 14 in about 1,000 villages in India.

**4.CONCLUSIONS**

The changes on the horizon offer a chance for education institutions, community organizations, students and families to put human fulfillment and people’s mutual well-being at the center of learning. There is an urgent need to update education systems to equip children with the skills to navigate 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 vision for how school systems can be updated to deliver on children’s future needs. This transformation calls for shifts in learning content to include both the technical and human-centric skills needed to build growing and inclusive economies and societies and shifts in learning experiences that more closely mirror the future of work. All the issues discussed are subjects for further discussion, investigation, experimentation, in short for a wide range of research.

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**REFERENCES**

1. Kadir Alpaslan Demir, Gözde Döven, Bülent Sezen,Industry 5.0 and Human-Robot Co-working,

Procedia Computer Science,Volume 158,2019,Pages 688-695,ISSN 1877-0509,

<https://doi.org/10.1016/j.procs.2019.09.104>.

1. p[**PwC Position Paper 2020**](https://www.pwc.com/gx/en/about/pdf/pwc-response-on-digital-education-action-plan.pdf)). //www.pwc.com/gx/en/about/pdf/pwc-response-on-digital-education-action-plan.pdf
2. [**PwC report for the European Commission 2020**](https://op.europa.eu/en/publication-detail/-/publication/845051d4-4ed8-11ea-aece-01aa75ed71a1)):https://op.europa.eu/s/pLm4
3. <https://www.linkedin.com/pulse/education-50-rehumanising-age-machines-kristina-dervojeda/?trackingId=OfNdsRnPW9DaeFhid38ftQ%3D%3D>
4. https://mattiasuisse.medium.com/education-5-0-why-i-think-we-need-to-adjust-the-education-system-4a669b26396d
5. <https://www.sciencedirect.com/science/article/pii/S1877050919312748>
6. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7869946/>
7. <https://knowledgeworks.org/resources/forecast-5/>
8. <https://knowledgeworks.org/wp-content/uploads/2019/06/knowledgeworks-forecast-strategy-guide.pdf>
9. <https://www.weforum.org/agenda/2020/02/schools-of-the-future-report-2020-education-changing-world>
10. https://www.weforum.org/agenda/2020/02/schools-of-the-future-report-2020-education-changing-world