Impact of Digital Transformation in Education

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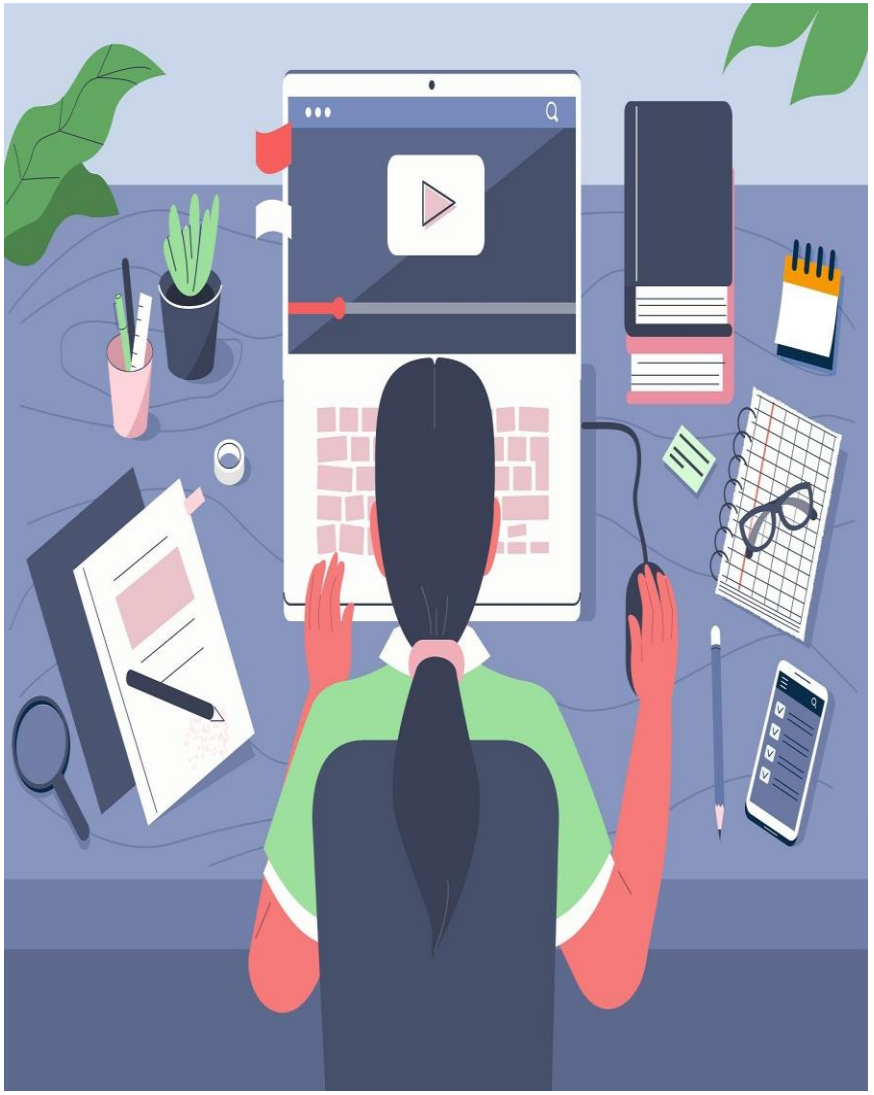
Digital Transformation in Education

Problem Statement:

Study the current trends and adoption levels of latest technologies in education industry and challenges faced thereof, as part of this study we also evaluate how learning footprint can be further expanded using digital means



Assessment of Digital Transformation in Education

What is the significance of IT infrastructure in achieving strategic goals?	➢ IT Infrastructure role is pivotal in meeting strategic goals for education sector as it enables technology which is an effective way to promote a healthy educational system worldwide. ➢ Internet and broadband connectivity is the key. It makes learning more accessible, exciting, and enjoyable. ➢ The development of IT infra and technological advancements in education leads to enhanced knowledge and skills of students.
How ambitious are country/ industry approach to digital technologies?	➢ Worldwide all countries want to move the dial in the right direction, penetration of education to all class of society is a universal goal along with inclusivity and diversity. ➢ Digital medium can accelerate the reach and adoption of education, this has proven itself right as we notice that Education is making up more than 6% of global GDP. ➢ The global online education market **grew to USD 250 billion** in 2020 from less than USD 190 billion in 2019.
How "Digital" is current interface to the audience/ customer?	➢ 3.6 billion people still have no access to the Internet and about 258 million children are out of school. For those enrolled and attending school, the COVID-19 pandemic created an unprecedented challenge, forcing 94 percent of learners worldwide to continue their education at home. ➢ According to global market research insights, online education has been projected to grow up to USD **586 billion** by 2027.
How will revenue get generated from future business operations?	➢ Faster and personalized experience in urban areas and expansion in rural gives wider scope for revenue generation for interested organizations. ➢ A large share of revenue generation may come with smaller margins, yet deep penetration & reach, especially in developing countries and continents.
What will be the future business scope of the education sector	➢ Faster, affordable, financially viable, sustainable and personalized solutions ➢ Expansion in rural areas ➢ Leveraging latest technologies IOT, Block Chain and Big Data ➢ Augmented reality and virtual reality to give personalized and real time experience ➢ Online Classes, Smart Classrooms, Analytics and AI to give personalized learning experiences
Who should take charge of the digital transformation endeavour?	➢ Government of respective countries will be the key enabler to build easier and good policies and encourage digitization ➢ Public Private Partnership model can be a game changer here with government giving incentives to public companies in various shape and form

Main areas of Digital Transformation

Campus environment:

- Contactless attendance
- Facial recognition through camera images
- Auto detection of free courts in play areas through thermal screening

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Learning Environment

- Online assessments
- Virtual on boarding
- AR/ VR/ 4D to create enhanced learning experience
- Adaptive learning- personalizing assessments basis student performance
- Learning apps/ platform – provides learning content
- Chatbots- allowing easy navigation through lectures and assessments

Teaching Methods

- Smart classroom
- Digital white board
- AI driven online assessments
- AI-enabled remote proctoring

Traditional v/s Digital Education Comparison

Traditional Learning
Advantages/ Disadvantages

Advantages:

- Interactive/ Expression of Opinions
- Practical/ Hands-on-training
- Development of social skills
- Extracurricular activities and inculcating leadership skills

Disadvantages:

- No flexibility/ Time bound
- Limited number of students
- Additional cost of textbooks/ transport/ activities etc.
- Reliance on lectures & notes from the teachers resulting in less/ no research by students

Digital Learning
Advantages/ Disadvantages

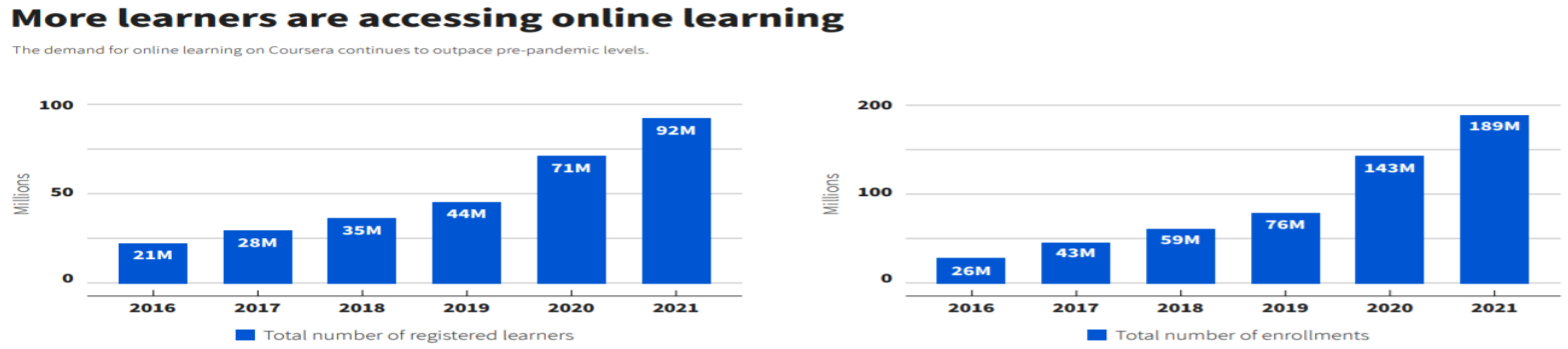
Advantages:

- Provides flexibility
- Access to study material/ lectures on demand
- Access to all kind of courses/ competent teachers from home
- Higher degree of ownership

Disadvantages:

- Requires high-quality internet connection
- Requires lot of self discipline
- Challenges in acquiring social skills
- Practical knowledge/ understanding required in certain fields like agriculture, medical etc. is missing

Exponential Growth in online education – an example (Coursera enrollment)



Critical Success Factors

Accessibility of essential resources like Computer/ Tablet, Internet etc.

Effectiveness of design of eLearning platform & Content of course

Effectiveness of instructors including their knowledge & enthusiasm

Competency & Comfort of students with computers

Learning material is sufficient & relevant

Acceptability of eLearning in society

Support provided by teachers & eLearning platform

Flexible payment options from affordability standpoint

Online learning is now a worldwide phenomenon

92M
Learners
+29%
YoY Growth

189M
Enrollments
+32%
YoY Growth

2.2M
Enrollments in Entry-level Professional Certificates
+200%
YoY Growth

NORTH AMERICA

20M Learners — **+24%** YoY Growth
39M Enrollments — **+26%** YoY Growth

EUROPE

16M Learners — **+26%** YoY Growth
38M Enrollments — **+27%** YoY Growth

ASIA PACIFIC

28M Learners — **+35%** YoY Growth
68M Enrollments — **+35%** YoY Growth

LATIN AMERICA

17M Learners — **+26%** YoY Growth
27M Enrollments — **+32%** YoY Growth

MIDDLE EAST

5M Learners — **+39%** YoY Growth
10M Enrollments — **+38%** YoY Growth

AFRICA

3M Learners — **+43%** YoY Growth
5M Enrollments — **+50%** YoY Growth

Expanding access to world-class universities

175+
University partners

4,400
Courses

490
Specializations

39
Certificates

33
Degrees

34M
Enrollments in the past year

190+
Countries reached

New university partners

Ashoka University · Dartmouth · Howard University · IIM · IIT · Indian Institute of Technology Guwahati · Indian Statistical Institute · ISAE-SUPAERO · Khalifa University · Morehouse · Pepperdine University · Pontificia Universidad Católica del Perú · Queen Mary University of London · University of Notre Dame

Top 10 countries with the most learners

Learners from around the world come to Coursera to build critical skills.

1. United States
17.3M

2. India
13.6M

3. Mexico
4.8M

4. Brazil
3.7M

5. China
3.3M

6. Canada
2.4M

7. Russia
2.4M

8. UK
2.4M

9. Colombia
2.2M

10. Egypt
1.6M

Top 10 countries by learner growth

Emerging economies reported the highest rate of new learner growth.

1. Paraguay
98%
110k learners

2. Lebanon
97%
158k learners

3. Philippines
85%
1.3M learners

4. Guyana
74%
60k learners

5. Indonesia
69%
789k learners

6. Kenya
61%
303k learners

7. Ethiopia
60%
103k learners

8. Rwanda
57%
50k learners

9. Vietnam
55%
718k learners

10. Kazakhstan
54%
323k learners

Coursera for Business

A growing number of companies used Coursera for Business to help their organizations develop the critical skills needed to thrive in a rapidly changing business landscape.

2,900
Companies

620k
Business learners

1.7M
Enrollments in the past year
35% YoY growth

92%
Learners reported positive career outcomes

eLearning crosses the boundaries of racism, bias, and social justice.

eLearning makes education available to refugees, veterans, justice-impacted individuals and underserved high-schoolers.

Coursera for Campus

After helping universities quickly transition online during the pandemic, Coursera for Campus is now creating new opportunities for higher education to respond with agility to changing student expectations.

3,600
Campuses

3.8M
Campus learners

4.1M
Enrollments in the past year

65%
Campuses are using Coursera to help improve student employability

73%
Learners reported positive career outcomes

Conclusion

Challenges/ Opportunities

Challenges/ Opportunities:

- High quality affordable Internet is one of the biggest issue. Penetration of internet is at 47% in India which is the second highest in terms of Internet usage
- More research and innovation is required In higher education or streams where practical experience is required like agriculture & medical science
- In the field of learners with special needs like dyslexic, blind & deaf learners.

Future Trends in Education Industry

Innovations that will address most of the challenges listed above.

- Immersive technologies + Metaverse + Gamification
- A la carte learning
- Hybrid learning will grow
- Personalized learning/ apps catering to students with special needs