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DIGITAL DIVIDE AND LITERACY

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INSIDE THE ISSUE

INTRODUCTION

Welcome to our newsletter on the digital divide!
In today's rapidly changing world, digital technologies are becoming increasingly integral to our daily lives. From remote work and online education to telehealth and e-commerce, digital technologies have transformed the way we live, work, and interact with one another.

However, not everyone has equal access to these technologies, creating a phenomenon known as the *digital divide*. The digital divide refers to the gap between those who have access to digital technologies, such as computers, high-speed internet, and smartphones, and those who do not. This divide is not only about access to devices and infrastructure but also about the skills and knowledge necessary to use digital technologies effectively.

The digital divide is a complex issue that affects people of all ages, races, and socioeconomic backgrounds. It can have profound impacts on individuals and communities, limiting their access to information, education, employment opportunities, and social connections. In many cases, the digital divide exacerbates existing social and economic inequalities, further widening the gap between those who have access to the benefits of digital technologies and those who do not.

In this newsletter, we will explore the different aspects of the digital divide, including its causes and consequences, and the efforts being made to bridge the gap. We will also share insights and perspectives from experts and stakeholders who are working to ensure that everyone has equal access to the opportunities provided by digital technologies.

We hope that this newsletter will help to raise awareness about the digital divide and inspire more people to get involved in bridging the gap. By working together, we can create a more inclusive and equitable digital future for all.

#DiveDeep

By. Dr. PS Patankar,
Professor and Head, Department of Education, Shivaji University, Kolhapur

We are sure you must have heard about Digital Divide! In this ever changing world of technology, we are constantly surrounded by advancements and innovations that shape our daily lives. The concept of the digital divide has gained significant attention as it highlights the disparity in access to and utilization of technology among different individuals and communities. Read ahead to #divedeep and understand more about what it is and which areas it impact!

DIGITAL DIVIDE

The term "Digital Divide" was first coined by Lloydr Morristt , emerged in 1990 in the USA to describe observed inequalities of access , initially to computers and later to internet information and other digital technology . It refers to the unequal and disproportionate pace of digital services and infrastructure. There is inequality among people in terms of access to digital tools and techniques which creates the gap between those having regular, effective access to Digital and information technology and those without having it.

Digital divide also refers to the gap between demographic and regions that have access to Modern ICT and those who don't have. Thus, simply speaking, the Digital Divide is a gap between the people who know the technology and have access to technology and those who do not know and have this access to use for personal, educational and commercial purposes.

This digital divide also exists between Developed and developing countries, urban and rural population, young and older, literate and nonliterate, and gender wise. With the onset of Fourth Industrial Revolution in today's time, India witnesses a widening inequality between the digital haves and have-nots. But it became a buzzword of discussion in the world platform due to COVID-19 Pandemic, a new face of technology.
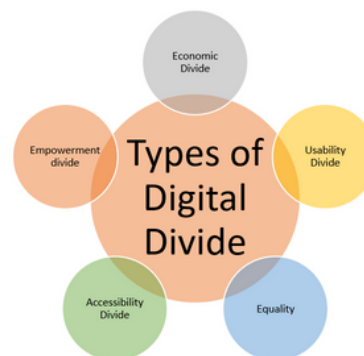

Source:https://www.jatinverma.org/digital-divide-in-education
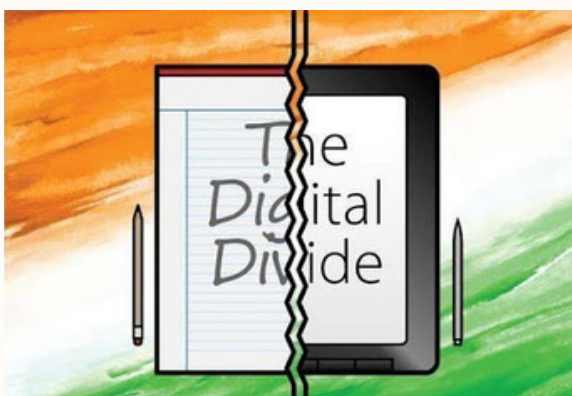
Simply put, the digital divide can be explained as the inequalities between the digital haves and the have-nots in terms of their access to the internet and the ICTs.

TYPES OF DIGITAL DIVIDE

Digital Divide in India can be divided into following types:

- **Economic Divide**: Poverty and economic constraints, limited resources etc. prevent from obtaining or using modern technologies are the most common causes of a digital divide. According to predictions made by experts, computers will be out of reach for the typical citizen in developing nations for the next 20 years or more.

- **Usability Divide**: Economic disparity is the reality that technology is still so complex that many people would be unable to utilize a computer even if they were given one for free. Many others can use computers, but they do not reap the full benefits of the contemporary world since most of the available services are too complex for them to comprehend. e.g. how to send mail or arrange Google class/skills and ability of handling and using digital devices and technologies accessing good and relevant information in remote area

- **Equality Divide**: Urban and rural regions, gender, socioeconomic status , culture , religion cause equality divide

- **Accessibility Divide**: Socioeconomic differences between people, countries, remote areas register to access digital resources a tiny minority of one per cent accounts for the majority of contributions.

- **Empowerment Divide**: Participation inequality is a manifestation of the empowerment divide that has persisted throughout the years of Internet growth in social networks and community systems, roughly 90 percent of users do not contribute, nine per cent contribute infrequently.

EFFECTS OF DIGITAL DIVIDE

The digital divide in India has several implications on political, governance, social, economic and educational fields . Political empowerment and mobilization are challenging in the age of social media without internet access. Transparency and responsibility demand digital compliance. Internet penetration is linked to a country's socioeconomic advancement.

Research and innovations are also hampered due to digital divides.

Thus, a country's socioeconomic and technical growth is hampered by the digital divide. Because of the digital gap, rural India suffers from information poverty. It simply serves to exacerbate the tragic cycle of poverty, hardship, and backwardness. The digital gap creates economic disparities between people who can and cannot afford the technology. Finally, the digital gap influences children's ability to learn and develop. Students cannot develop the necessary technical abilities unless they have access to the Internet.

STUDIES ON DIGITAL DIVIDE

1) The report 2021 of the **Azim Premji Foundation** showed that almost 60% of School Children in India cannot access online learning.

2) A Report of the study by **Oxfam India** stated that students of urban private Schools also faced the problem of online learning, half of their parents reported issues with internet signal and speed, cost of mobile, use of various platforms for teaching and learning, manners etiquettes while online learning .

MAJOR FACTORS RESPONSIBLE FOR DIGITAL DIVIDE
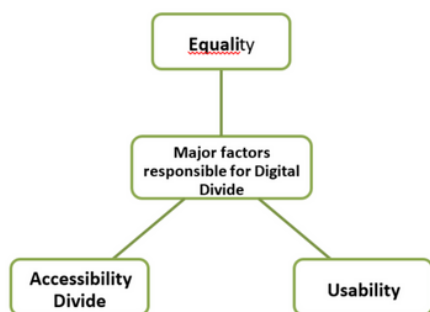
*Major factors responsible for digital divide*

1. **Accessibility Divide:** Socioeconomic differences between people, countries, register to access digital resources

2. **Usability**: how to send mail or arrange Google class/skills and ability of handling and using digital devices and technologies and using digital devices and technologies accessing good and relevant information in remote area.

3. **Equality:** Urban and rural regions, gender, socioeconomic status should have equal access to digital technology .

OTHER FACTORS CONTRIBUTING TO DIGITAL DIVIDE

There are so many factors responsible for the digital divide. Some of them are Computer Literacy, Operating skills, use of internet information , working knowledge of English, Device availability, social mobility, network mobility all these factors influence the digital divide. ,age bias, physical disability ,lack of infrastructure, Information Technology support, attitude, irrelevant content, socio economic conditions, ,knowledge and education divide, delay in implementation of Government policies, literacy and skill barriers, economic barriers, language barriers, lack of training, time, resources and funds.

Source: https://www.sketchbubble.com/en/presentation-digital-divide.html
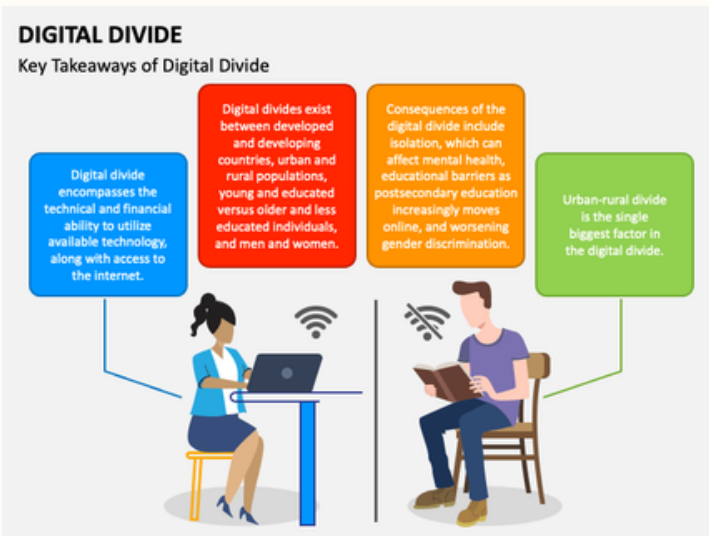
In conclusion, minimizing the digital divide is crucial in today's rapidly evolving world of technology. By investing in infrastructure, promoting affordability, providing digital literacy programs, ensuring access to devices, localizing content, fostering collaboration, and conducting continuous monitoring and evaluation, we can make significant progress in bridging the gap. It is imperative that governments, organizations, and communities work together to create equal opportunities for all individuals to access and utilize technology. By doing so, we can build a more inclusive and equitable society where everyone can fully participate in the digital age and reap its benefits.

Expert Opinion

A CHAT WITH AI ABOUT THE DIGITAL EDUCATION ACTION PLAN - WHAT WE SHOULD THINK ABOUT?

Essi Silvennoinen is a highly accomplished individual with a diverse range of expertise. For over 11 years, Essi has been a senior lecturer at JAMK University of Applied Sciences, where she is a certified team coach and pedagogical developer in the innovative Team Academy program.

INTRODUCTION

This is a co-creational article with chatGPT and I about the EU Digital Education Action Plan (2021-2027) and how I see the change as a teacher trainer from Finland. I had my own writing as a baseline of this article and used 4 out of 10 questions related to learning, Artificial Intelligence, Finland and higher education solutions. Let's see whether you can spot where Chat GPT has a role.

The Digital Education Action Plan is a policy initiative by the European Union aimed at supporting the adaptation of education and training systems to the digital age. It aims to provide high-quality, inclusive, and accessible digital education in Europe. Before publishing the European Commission opened a call for all citizens, institutions, and organizations. According to the report of Open Public Consultation, 60% of respondents had not used online and distance learning before the COVID-19 crisis. Digital tools, applications and learning content should be up to date, of high quality and easy to use, and not dependent on the economic situation of the area, city, or community. Over 60% of people reported an improvement in their digital skills during the crisis, and more than 50% plan to enhance them further.

The Digital Education Action Plan (2021-2027) states two strategic priorities. The first is to foster the development of a high-performing digital education ecosystem, which includes infrastructure, connectivity, and digital equipment, effective digital capacity planning and development, digitally-competent and -confident educators and education & training staff, and high-quality content, user-friendly tools, and secure platforms. The second priority is to enhance digital skills and competences for digital transformation.

Reflecting on this EU Digital Education Action Plan we must remember that it is a framework for all member states.

Reflecting on this EU Digital Education Action Plan we must remember that it is a framework for all member states. The actions and Open Public consultation results vary a great deal in different member states but variation can be large also inside the member state. A viewpoint on the plan is Finland and a teacher trainer in Professional education. The plan states, "resetting education and training for the digital age" and that's the angel I dive in.

In Finland, change has been seen in the teaching profession itself. Teachers are no longer viewed only as providers of knowledge but as facilitators of learning. Educators are expected to possess technical skills and promote digital education in their practice. This has resulted in a more engaging and personal learning experience for students. In the EU's Digital Education Action Plan, there is an emphasis on building the skills of both educators and learners. The plan stresses the need for upskilling and retraining teachers in order for them to better integrate digital technology into their teaching process.

DIGITALLY CONFIDENT TEACHERS AND EDUCATORS?

A confidence for teaching starts from the recognition of one's own skills and competences with the ability to reflect. In the context of the EU Digital Education Action Plan, a teacher trainer could use usage theory to develop their character as a teacher. It gently forces teachers to create their own insight about the concept of a good teacher. By this way a teacher could discover their own identity as a teacher by thinking and visualizing their values, strengths, skills, knowledge, and assumptions about learners, learning, and school. A digitally confident teacher is the who understands how to use technology in a pedagogically sound way. Usually, the effective learning process will utilize the best features of all learning environments and then confidence is built on the thought that achieving learning goals is a result of good learning.

One of the good lessons of the pandemic was that it reminded teachers of the fact that learning is not time and place dependent. Although the transition - from contact teaching to digital teaching- happened practically overnight, it produced a wealth of insights and creative solutions that teachers in Finland have actively shared with each other across school boundaries. One of them is a thought of the teacher's role as an enabler of a learning event. When using blended learning, it is important to make the learning process and actions transparent to all parties. The learner must know what is being done and what is required, and the teacher needs to know that the assessment of learning can take place. Importance of formulating learning goals and planning the delivery of the learning process are emphasized rather than thinking about the use of one tool, technology or application. Perhaps we should rethink the word digital pedagogy again and do we really need that? Would it be better to just think about pedagogy and pedagogical solutions from the learner's point of view?

Another observation is that competence-based learning is often a slow process and at this moment rapid developmental changes are happening in the world. Pedagogical solutions whether they are digital or not, must take place under the conditions of the green transition and sustainability. In general, building a sustainable future for everybody requires systemic thinking, discussion and the implementation of the principles of sustainable development from both the teacher and the learner. Systemic thinking is defined as the ability to identify systems, understand how systems work, predict dynamics or their behavior and change systems to achieve the desired effect. Systemic thinking as a teacher's competence should be part of the teacher's training and the teacher's everyday life. This is favoring co-creations in planning and teaching. The teacher teams are finding synergies from their subjects and a school is part of the learning ecosystem.

Effective collaborative work requires pedagogical principles. For example, peer learning is not happening itself and the use of the mobile phone in teaching is by no means self-evident. What kind of pedagogical principles do we have for learning? In Finland, this thinking is quite advanced and, in some respects, the legislation on education provides quite clear answers to it.

However, this is not the case in all European countries. In addition, the GODS regulations in Europe determine the pedagogical use of a wide variety of digital tools. Pedagogical solutions and ethical principles are not only a personal matter of the teacher, but decisions must be made at the community level. Moreover, they need to be the same in all learning environments.

In recent days, at least in Finland, teachers have been talking about artificial intelligence and the threats and opportunities it brings. Artificial intelligence and machine learning will change many things in teaching and learning, but it will certainly change learning assignments and assessment practices. For example, Helsinki University has developed an AI-assisted oral exam, where a student's responses are analyzed by a machine. Another example is the use of Artificial intelligence -generated personalized quizzes. These quizzes are tailored to individual students based on their previous performance and provide them with questions that will be most beneficial for their learning. The system provides feedback for the students and teachers, enabling them to identify areas where further guidance may be needed. Artificial Intelligence can improve assessment by making it more objective and reducing the potential for bias. One example of this is the use of computer programs to monitor exams, that can identify cheating and prevent students from sharing information during exams.

These are all good examples but we also can see the others coincide. Artificial intelligence is like fire. A good servant but a bad master. Just as earlier in history, humans had to learn how to utilize the use of fire, so the same work is ahead for teachers with artificial intelligence in the context of learning and ethics.

SUMMA SUMMARUM – PEDAGOGICAL CARING IS A KEY SKILL

In the words of Greek philosopher Socrates as a guideline "Know thyself." This is probably a good guideline to start developing digital pedagogical thinking further in this time as well. For this identification of learning, the digital education action plan has already released the SELFIE self-assessment tool for teachers.

It allows you to reflect on and compare your own digital competence. This analysis is good and necessary for identifying one's own competence, but still the professional goal setting and how to develop competence remains with the individual himself.

The development of pedagogical thinking, as well as the courage and desire to try new things, is the responsibility of the teacher. How to harness this for the benefit of learners is a broader question. In Finland, the teacher has a vast pedagogical freedom and responsibility. This will help teachers to examine new digital platforms quickly, if the ethical and pedagogical principles of the educational organization are met.

Multi-location learning requires pedagogical caring: meaning that a teacher has a strong presence, focused caring and compassion shown in a learning situation. It is also about recognizing the potential of digital tools and resources to enhance learning experiences and promote student engagement and motivation. Pedagogical caring is essential for effective digital learning as it helps to build strong teacher-student relationships, which are crucial for promoting student success and well-being. In a nutshell, every learner feels heard and seen, and that makes the learning event meaningful. Digital places and ways of learning are more fast-paced, and it is necessary to build pedagogical security there more consciously and pay attention to habits. Perhaps we teachers should wake up to a time where digitalization is not a "thing" but one of the starting points for organizing education in the best way for the learner.

Overall, the plan offers a positive outlook on the future of digital education in Europe. By investing in the skills of educators and learners, promoting inclusivity, and utilizing digital technology, the EU has the potential to offer a unique and successful education system.

> ## WE STILL HAVE A LOT TO DO, AND THE MOST IMPORTANT THING IS TO START, TRY, FAIL AND TRY AGAIN AND SHARE OUR LEARNINGS ALONG THE PATH.

OPINION

THE OVER-RELIANCE ON AI: A THREAT TO CRITICAL THINKING AND INNOVATION
-Varnika Sharma

There is no doubt that AI platforms have revolutionized the way we live and work, providing us with unparalleled efficiency and accuracy in tasks that would have taken us hours to complete. However, we need to realize that more and more utilization of AI tools in our day-to-day life has tremendous and irreplaceable implications on our minds. If we come to think about it, such tools are highly limiting our creativity and thinking ability by permeating our minds.

As we become more reliant on AI platforms to perform the simplest tasks for us, we risk losing our ability to think creatively and critically. Do you remember when the latest technology used to replace what we once considered very important for our daily functioning? For example, mobile phones replacing calculator, alarm clock, landline phones, cassette players, paper maps, etc. The same thing is happening with humankind today. As we become more reliant on AI platforms to do the tasks for us, the more the chances are of some professions losing their livelihood. Intimidating, isn't it?

We are becoming more dependent on these platforms to solve problems for us, rather than using our own intellect and creativity to find solutions. This over-reliance on AI platforms is gradually reducing our capacity to think creatively and take risks, which is essential for innovation and progress. If we think about our future generations, it is highly probable that they would have limited real-life experiences, would lack creativity and communication skills, and would have diminished critical and analytical thinking skills.

Furthermore, since the AI platforms learn through user input and interaction, they may reinforce existing biases and stereotypes, instead of promoting diversity and inclusivity. This could result in a loss of diversity in perspectives and ideas, limiting our ability to solve complex problems and make meaningful progress as human society.

Therefore, while AI platforms have undoubtedly made our lives easier, we need to ensure that they do not replace our own creativity and thinking ability. We need to limit their usage in our lives and utilize them where we really need them. We must continue to encourage and develop the human skill set, as they are crucial for driving innovation and progress in our society.

EXPERT OPINION

DIGITAL DIVIDE: BARRIER FOR THE EQUAL ACCESS TO THE INFORMATION ECONOMY

By Dr. Supriya Patil, Shivaji University, Kolhapur

Dr Supriya Patil, a Faculty member at Shivaji University Department of Education has shared her insights on Digital Divide. She sheds light on these barriers and helps the readers acknowledge the different initiatives being taken by the government! Read ahead..

Information Haves & Have Nots

In the age of Technology "Digital divide", or the separation between those who have access to, and can effectively use technology, and those who do not nowadays become wider. This digital divide makes the world population as an information rich and information poor population. Also named as a haves and haves not (Cronin, 2002).

Digital divide Phenomenon includes divide of following components for access:

1. Basic local and long distance telephone services
2. Computers
3. Information Technology
4. Internet Connectivity
5. Online Technologies

Reasons

- Electricity failure, poor internet connectivity in the coastal, hilly, remote areas of rural and urban

- Lack of awareness on technology devices and internet access,

- Absence of ICT training and support to educators and learners,

- Economic constraints to buy hardware equipment and access denied for womenfolk

- Imbalances in physical access to technology

- Imbalances in resources and skills needed to effectively participate as a digital citizen

- Lack of coordinated Government initiatives

- Low literacy and education

- Socio-economic factors

Initiatives by the Govt. of India

To minimize the digital divide initiatives taken by the India are as follows:

1. **PM eVidya:** A comprehensive initiative called PM e-VIDYA is launched which unifies all efforts related to digital/ Online/ On-air Education to enable multi-mode access to education.

2. **DIKSHA:** Digital Infrastructure for Knowledge Sharing portal and mobile app created by MHRD, Government of India is a storehouse of a large number of e-books and e-contents created by states and National Level Organizations.

3. **Swayam Portal:** It is a programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy. i. e. Access, Quality and Equality.

4. **NISHTHA:** The Union Human Resource Development Minister has launched National initiates for School Heads and Teachers Holistic Advancement. Teachers will get awareness and develop their skills on various aspects related to : Learning Outcomes, Competence Based Learning and Testing, Learner Centered

5. **VidyaDaan:** This national program is a call to the nation, particularly individuals & organizations across the country to contribute e-learning resources in the education domain to ensure that quality learning continues for learners across India.

6. **Swayam Prabha through TV Channels:** These channels can be accessed through DD, Dish TV and Jio TV app. It is proposed to have 12 dedicated TV channels on each from class to class 12.

In order to bridge the digital divide, we need to train teachers, provide schools and students with the right IT tools and evaluate and strengthen students on a regular basis. At present India is lacking the necessary infrastructure to teach its learners digitally. Hence to narrow the digital divide, we have to provide SWAYAM uninterrupted internet connections and electronic devices which can be done through partnership with mobile networks.

EXCLUSIVE INTERVIEW

CHATGPT AND HOW TECH IS PERMEATING HUMAN MINDS

with Prof. Sujata Srivastava

Prof. Sujata Srivastava

Prof. Sujata Srivastava is a senior faculty at the M.S. University of Baroda in Vadodara, Gujarat, India. She holds a Masters in English, Masters in Education, and a Ph.D. in Education. With extensive research experience, she has authored/co-authored 50 articles, research papers, reviews, and book chapters in the field of Education. She has also edited 9 books. Prof. Srivastava has presented papers at national and international seminars, including the World Congress in Comparative Education in Mexico. She has been involved in various research projects funded by organizations like UGC, NCERT, and NIEPA. She is engaged in curriculum development and serves on committees for teacher education and educational institutions. Ms. Shama Ansari, Sr. Research Scholar in the Department of Education, The Maharaja Sayajirao University of Baroda interviewed Prof. Sujata Srivastava Thursday, 6th April 2023 at 11:35 am.

INTERVIEW

Can you provide a brief introduction about yourself for our readers?

Good morning, Shama. I am Prof. Sujata Srivastava, a Senior Professor at the Department of Education, Faculty of Education and Psychology, The Maharaja Sayajirao University of Baroda, Gujarat, India. With over twenty-five years of experience, I have dedicated my career to teaching and research.

Can you share your understanding of what CHATGPT is and its functioning?

Certainly! ChatGPT, developed by OpenAI and launched in November 2022, stands for Generative Pretrained Transformer. The "Generative" aspect refers to its ability to generate text that resembles human language. It is "pretrained" on an extensive dataset created by humans, and "Transformer" indicates its utilization of machine learning techniques. Essentially, ChatGPT operates as a chatbot, enabling interactive conversations.

Have you utilized CHATGPT for teaching, learning, or administrative purposes?

No, I have not used ChatGPT for teaching or learning activities. However, I did experiment with it during a conference presentation to explore its generative text capabilities and observe its responses. The purpose was solely for demonstration and to observe the type of text it generates.

What are your thoughts on the use of Chat GPT in Education? What are some of the benefits and drawbacks of using ChatGPT in teaching-learning?

I believe that technology is constantly evolving, and the third Industrial Revolution brought about significant advancements such as digital technology, cellular phones, microprocessors, and the internet.

However, we are still in the process of effectively integrating these digital tools into education infrastructure for teaching and learning purposes. Now, with the emergence of ChatGPT, a new technology, it is crucial to use it judiciously and establish appropriate regulations. Like any technology, ChatGPT has both positive and negative aspects that need to be considered.

How do you believe ChatGPT is influencing the way people engage with technology?

ChatGPT offers a broader range of options compared to traditional search engines like Google. While search engines provide access to information, ChatGPT introduces new functionalities. It serves as a personalized educational resource, allowing students to ask various types of questions, receive different explanations, and even obtain summaries. This enhanced interactivity can greatly benefit student teachers, particularly in the field of education, by providing them with valuable insights and learning opportunities.

There is concern that relying on ChatGPT could hinder effective communication with other humans. Do you consider this concern valid? Why or why not?

I don't believe this concern is specific to ChatGPT alone. The issue of technology affecting human communication has been prevalent for a while now. It is true that technology has contributed to a sense of disconnection, as the more connected we are digitally, the more disconnected we often feel. Excessive screen time has led to reduced human interaction among children and adults. However, I don't think ChatGPT specifically exacerbates this issue further. It is already a part of the existing technological landscape.

As educators, it is our responsibility to cultivate critical thinking skills in students. Will the use of AI hinder this process? Why or why not?

Yes, I believe that the use of AI, specifically ChatGPT, can hinder the development of critical, analytical, and creative thinking skills. With the abundance of plagiarized content available through platforms like Google, students often resort to copying information without critical analysis. ChatGPT adds to this concern as its human-like text generation makes it difficult to differentiate between original and AI-generated content.

Additionally, ChatGPT provides creative prompts and research tools, further blurring the distinction between student-generated and AI-generated work. This can have a detrimental impact on the cultivation of thinking skills, particularly in the Indian educational context where there is a recognized need for improvement in this area among learners.

How might ChatGPT and similar technologies affect the job market, and what measures can be taken to mitigate potential negative effects?

It is not solely ChatGPT but automation and evolving technology that impact jobs. The progression of AI tools and automation leads to a shift in the job market. Certain routine and administrative tasks can be performed by technology, potentially leading to job displacement. However, there will still be a demand for individuals engaged in thinking and creative roles. To mitigate potential negative effects, steps can be taken to reskill and upskill the workforce, emphasizing the development of critical thinking, creativity, and adaptability. Additionally, fostering a culture of lifelong learning can help individuals stay relevant in an evolving job market.

What role do you believe educators and researchers should play in ensuring the ethical and responsible implementation of ChatGPT?

Educators and researchers have a crucial role to play in promoting ethical and responsible use of ChatGPT. It is essential to provide learners with a clear understanding of the ethical considerations associated with using AI-generated content. By instilling ethical standards and accountability, teachers can guide students in making responsible choices. Additionally, monitoring classwork and emphasizing in-class activities can help mitigate the potential for deceptive practices. While advanced monitoring technologies like Guardian may not be available in all contexts, involving students actively within the classroom can contribute to maintaining integrity.

Thus, the active involvement and guidance of educators are vital in ensuring the ethical implementation of ChatGPT.

Source: www.devdiscourse.com

What are your thoughts on the open letter signed by prominent individuals in the AI field, including Steve Wozniak and Elon Musk advocating for a pause in the rapid development of ChatGPT due to societal risks? Additionally, how do you view Italy being the first country to ban the use of ChatGPT citing privacy concerns?

While I understand the concerns expressed in the open letter, I don't fully agree with halting the development of ChatGPT. Technology will continue to evolve, and instead of stopping its progress, I believe it is crucial to focus on the judicious and ethical use of technology. It is noteworthy that Italy has chosen to prohibit the use of ChatGPT due to privacy concerns. However, in other regions like the United States, efforts are being made to provide guidance and orientation to educators and learners on the responsible use of ChatGPT. It is essential to address privacy concerns and ensure ethical practices while embracing the potential benefits of AI technology.

What is your message to all those students who are using CHATGPT in their day-to-day lives?

While I understand the concerns expressed in the open letter, I don't fully agree with halting the development of ChatGPT. Technology will continue to evolve, and instead of stopping its progress, I believe it is crucial to focus on the judicious and ethical use of technology. It is noteworthy that Italy has chosen to prohibit the use of ChatGPT due to privacy concerns. However, in other regions like the United States, efforts are being made to provide guidance and orientation to educators and learners on the responsible use of ChatGPT. It is essential to address privacy concerns and ensure ethical practices while embracing the potential benefits of AI technology.

FOSTERING DIGITAL INCLUSION: UNVEILING THE BARRIERS AND BUILDING AN EQUITABLE DIGITAL LANDSCAPE

By Dr. Nagina Mali
Assistant Professor, Department of Education, Shivaji University, Kolhapur

Digital spaces are a crucial part of modern society, serving as a foundation for social, professional, and academic systems. Excluding individuals from these spaces only widens the network gap and leaves out important perspectives, culture, values, and norms.

The digital divide is the gap between those who have access to the internet and reliable devices and those who don't, which can be defined by two main characteristics: access to high-speed internet and access to reliable devices.

Regarding internet access, individuals face challenges such as authenticity of data and information, virus entry through applications, hacking, search engine reliability, plagiarism, relevancy, quality of service, copy-paste, security, and continuity in screen time. Ready-made information can sometimes stifle critical thinking, so it's important to understand that the internet should assist in finding information, not replace it.

The lack of adequate internet access in many areas makes it difficult for those who need it, even with a reliable connection. Access to certain digital spaces can be challenging for those who cannot afford expensive tools. Reliable device options are limited, and mobile devices are the only tools available for many people.

Regarding the education system, the following factors could be considered-

① K-12 SCHOOL EDUCATION:

There are students from low-income families who cannot afford a mobile phone, let alone a laptop or tablet which are often necessary tools for online learning. In such cases, who will be responsible for their slow development of education? Is it possible for them to afford such tools, or does the government have policies in place to offer them at reduced prices? While the situation is improving in cities and urban areas, the COVID-19 pandemic has exacerbated the problem in rural and tribal areas where many students have been forced to learn virtually from home.

② COLLEGE EDUCATION:

College-level education follows a self-learning approach known as andragogical practice. This method assumes that learners have prior experience and knowledge, as well as their own learning styles. However, completing assignments, submitting them online, participating in discussions, attending virtual classes, and accessing tutoring services can be a daily challenge for students, particularly those in rural and tribal areas. Limited access to reliable devices and high-speed internet can negatively impact their career prospects, making it difficult to manage internships, mentorship programs, and networking opportunities. While online tools are available for studying, they cannot replace teachers, even when teachers are available for mentoring online.

③ WORKING PLACE:

In the recent era without technology you cannot survive in a challenging working place. Technology skills, monitoring, commanding, managing, collaborating, communicating, designing, sharing, marketing, searching, developing, creating, are the soul of the workplace in any area. If you don't have one, you will miss it, as with any of the significant opportunity gaps, those who experience the digital divide in earlier life can feel the effects well off in their career. The digital divide often means the difference between an individual having the training and experience they need or missing the opportunity to hone their skills and further their education.

Internet connectivity is an essential part of modern life. If we aim to bring the Internet to everyone and build a globally connected, secure, and trustworthy Internet, we must plan and implement programs for internet access in rural and tribal areas to provide equal opportunities for both males and females.

INNOVATION MANAGERS ON THE FIELD

By Dr. Geetanjali Joshi, EDUREFORM Innovation Manager at Shivaji University

Our Innovation Managers go above and beyond in their efforts to fully implement EDUREFORM, while also dedicating time to connect and engage with external stakeholders, spreading the story and impact of our project. In a recent interview, Dr. Geetanjali Joshi had the privilege of conversing with Mrs. Vaishnavi Sangram Sarnobat, Principal of Rajveer Public School in Washi, Dist. Kolhapur, where they delved into the topic of the digital divide prevalent in rural areas. Their discussion shed light on the challenges and opportunities surrounding this issue.

INTERVIEW

Is access to technology and the internet an urgent requirement in the information age?

Mrs. Vaishnavi Sarnobat

Absolutely. In today's world, technology and internet access are crucial and urgent necessities. The COVID-19 pandemic posed significant challenges, including limitations on movement and disruptions to regular activities. Students in rural areas faced difficulties in their studies, further emphasizing the importance of technology and internet access. It's worth noting that around 75% of India's population resides in rural areas, with many relying on agriculture for their livelihoods.

Rural communities encounter various obstacles due to widespread poverty, hindering their ability to afford essential resources for a proper standard of living. During the pandemic, the shift towards digital education was adopted, but students in rural areas faced a lack of access to smartphones, amplifying the existing digital divide. Moreover, teachers in these regions often lack the necessary technological proficiency to effectively utilize online resources for teaching purposes.

Challenges such as limited internet connectivity, frequent power outages, and dependence on climatic conditions further exacerbate the issue. Additionally, some schools in rural areas have a single teacher responsible for multiple tasks, a situation referred to as "*ek shikshaki shala*." These teachers and students faced significant disruptions to their educational journey.

In conclusion, access to technology and the internet is an urgent requirement in the information age. Addressing the digital divide in rural areas is essential to ensure equal opportunities for education and bridge the gap between urban and rural communities.

According to you, how Digital Divide can be reduced?

Most of the time rural students don't have gadgets to learn digitally. So, it is the government's responsibility to provide internet, laptops, computers and tablets. I think that big companies should provide CSR funds as a donation to schools in rural areas. Teachers must be uplifted and upgraded the education system in urban as well as rural areas. Teachers and students need to be fully trained to use the internet and technologies.

How can you relate Digital Divide with rural education / rural children?

Dr. Geetanjali - interviewer

Internet connectivity remains a significant challenge in rural areas, contributing to the digital divide. The lack of proper support and training for teachers further compounds this issue. However, by improving accessibility to the internet and smart devices, rural schools can embrace and deliver quality education. The scarcity of adequate gadgets for online learning in rural areas exacerbates these challenges, underscoring the urgent need for a solution.

What measures do you believe are necessary to bridge the digital divide in the education system, particularly in rural areas of India, and ensure equality in digitalization?

I believe that addressing the digital divide requires the provision of ample digital resources. It is crucial for teachers to receive adequate training in utilizing digital media for teaching, as this will empower students to become proficient in digital skills. The government's support in this matter is commendable, and we can aspire for equal digitalization between rural and urban areas in India's education system

THE PANDEMIC'S IMPACT ON EDUCATION: EXACERBATING THE DIGITAL DIVIDE

By Ms. Sadhika Chauhan, Project Manager, EDUREFORM

HIGHLY CHANGING EDUCATION SECTOR SINCE COVID OUTBREAK

It's been nearly two years since schools across the nation were closed in the aftermath of the coronavirus. All of the schools were shut down at once. The pandemic has created an immense digital divide to the country and turned education into an expensive or even a privilege only the wealthy are able to afford.

The world of 2020 began to embrace digital transformation at a rapid pace, reinventing technology's vital role in our lives as we learn, work and live. However, the COVID-19 epidemic highlighted an issue that has been around for a long time: billions of people are still without the basic human right to internet access.

As the world raced to end the COVID-19 pandemic 191 countries have shut down schools from pre-primary through Tertiary, and affected at least 1.5 billion which is more than 90% of students around the world.

RELIANCE ON TECHNOLOGY

The pandemic has led many institutions and governments to adopt distance learning, allowing teachers to maintain the classroom environment and monitor student progress. However, the reliance on technology has highlighted economic and social disparities in access to wireless internet, which is becoming increasingly important in connecting everything in the digital world.

It is important to ensure everyone has access to wireless internet and close the digital divide by bringing 5G to everyone, as technology has the potential to be an equalizer and should not be a cause of division.

COVID-19 has been a catalyst for change in the education sector, forcing a rapid shift to digital learning and highlighting the need for equitable access to technology and internet connectivity

PEDAGOGY OF THE VIRTUAL

As we look at the challenges in connecting to the internet and other infrastructures with great difficulty as students' step into an internet class, their battle in decoding the audio instruction as well as the notes, assignments as well as class instruction, assessment and, overall decoding the internet narrative is just beginning. The online curriculum is exclusive and the content is designed to be accessed only via the internet. It can be difficult for students who are not familiar with the internet to comprehend the concepts, communicate them and master them and upload them for the teacher to review and evaluate, while the teacher is learning to develop methods of assessment online.

> COVID-19 HAS BEEN A CATALYST FOR CHANGE IN THE EDUCATION SECTOR, FORCING A RAPID SHIFT TO DIGITAL LEARNING AND HIGHLIGHTING THE NEED FOR EQUITABLE ACCESS TO TECHNOLOGY AND INTERNET CONNECTIVITY

CONCLUSION

In addition to the heightened disparities in accessing the internet, digital tools as well as infrastructure, in India. There are a variety of alternatives explored by not-for-profit organizations and educational institutions can be viewed as examples of the best practices or at a minimum an avenue to take. Although homeschooling was popular in the outbreak, the absence of a physical teacher has highly impacted the processes of mentoring, remediation and assessment.

A blended or hybrid model, which is starting to emerge in various institutions will guide the steady and slow transition towards the traditional calendar of learning.

EDUREFORM HANDBOOK

By Dr. Geetanjali Joshi, Innovation Manager, Shivaji University

The EDUREFORM project has finally unveiled its remarkable achievement—the launch of the highly anticipated EDUREFORM Handbook for Innovative Pedagogy! With a special focus on secondary school students, the project aims to promote innovative teaching and learning tools that enhance analytical, critical, and creative thinking skills.

The EDUREFORM Handbook offers an extensive collection of 22 chapters, each presenting unique and cutting-edge pedagogical methods for secondary school teachers and students. The book covers an array of captivating topics, including Brainwork, Pedagogy of Case Study, Computational Thinking, Concept Formation, Debate, Eduscrum, and many more. Every chapter delves deep into the methodology, providing comprehensive explanations, interdisciplinary activities, and practical applications.

The handbook is designed to be accessible to all educators and students. It features an easy-to-navigate layout and includes a glossary of terms for quick reference. Furthermore, readers can explore the authors' biographies, adding a personal touch to the content. The EDUREFORM Handbook is an invaluable resource that aims to create a transformative teaching and learning environment, fostering resilience and coping skills in students while cultivating their analytical, critical, and creative thinking abilities.

Get ready to embark on an exciting journey of educational innovation and empower your students to become analytical, critical, and creative thinkers.

[Click here](#) to download your copy of the handbook today!!!

EDUREFORM MOOC

By Ms. Mansi Uppal, Innovation Manager, Chitkara University

The world of education is evolving, and the advent of online learning has played a significant role in transforming how knowledge is acquired and shared. Massive Open Online Courses, also known as MOOCs, have become increasingly popular over the past decade, allowing learners to access high-quality educational resources from anywhere in the world.

In the latest development in online learning, EDUREFORM has launched its MOOC platform with a mission to revolutionize education. EDUREFORM MOOC offers an innovative and interactive learning experience that aims to provide quality education to Educators and students worldwide.

The EDUREFORM MOOC was successfully launched on 20th February 2023, and we are so excited to share with you that in just the first two months of launch, we have received more than 300 registrations.

This course is intended to give educators innovative pedagogical methods to utilize in the classroom to foster students' critical, creative, and analytical thinking abilities in less than 30 hours. These abilities are crucial for students to succeed in the quickly evolving 4th industrial revolution and to develop into active, involved citizens who can address the complex issues facing our society.

The learner will become familiar with a variety of instructional methods that can be employed to help students develop their 21st-century thinking abilities throughout the course. A *certificate of completion* will be given to the learner once they have successfully completed the course with a *minimum score of 80%*.

> If you are someone who is passionate about learning, improving your skills, and achieving your career goals, then you need to register for the EDUREFORM MOOC today.
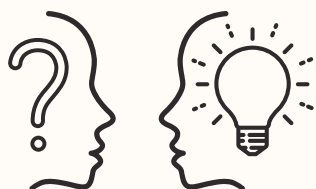
KEEPING UP WITH EDUCATION

TIME TO PLAY!

We are back with one of your favourite sections 'Keeping up with Education'. The EDUINFORMER ensures that you all keep your brains active and that you exercise your neurons with our riddles and games!

RIDDLE 1

I have keys, but no locks. I have space, but no room. You can enter, but can't go outside. What am I?

RIDDLE 2

A farmer has 17 sheep, and all but 9 die. How many sheep are left?

RIDDLE 3

There are two fathers and two sons at a table but there are only three people sitting at the table. How is this possible?

RIDDLE 4

Five friends—Alex, Ben, Chris, Dave, and Eric—are standing in a line. Alex is not standing next to Chris. Ben is not standing next to Eric. Who is standing in the middle?
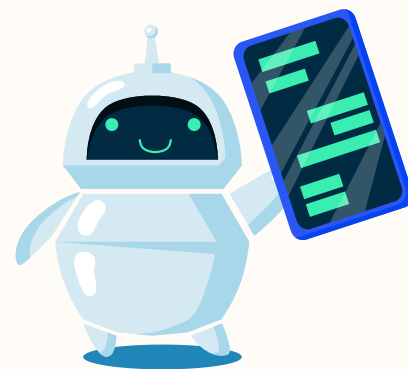
RIDDLE 5

There are three boxes labeled "Apples," "Oranges," and "Mixed." Each box is labeled incorrectly. You are allowed to open one box and pick only one fruit. How can you determine the correct labels for all three boxes by just picking one fruit?

INTERESTING AI PLATFORMS FOR YOU TO EXPLORE

- *CHATGPT: Powered by Open AI, It doesn't need any introduction now!*

- *Numerous.ai: AI assistant to breeze through busywork in excel and Google sheets.*

- *MagicSlides: Fast presentation slides creation from text.*

- *Gamma.app: Present ideas beautifully*

- *Thumbly.ai: Generate high performing thumbnails in minutes*

- *Nvidia Canvas: Draw blobs of paint and it will transform them into photorealistic scenes. This one is personally my favorite!*

- *Rationale.jina.ai: Your personal decision making assistant*

- *wavtool.com: Creators love this one! It is the craziest AI music tool on the market at the moment.*

CONTACT US!

Do you have a riddle you woud like to share? You cannot find the answer to some of our games?

Reach out to us on edureform@chitkara.edu.in

TIME TO BID ADIEU..

As we reach the end of this newsletter, we bid farewell with a bittersweet sentiment. Exploring the theme of the digital divide has been an eye-opening journey, reminding us of the importance of bridging the gap in access to technology and internet resources. We hope that the insights and discussions shared here have sparked meaningful conversations and encouraged proactive steps towards minimizing this divide.

Remember, the digital divide is not just a technological challenge but also an issue of social equality. Let us continue to advocate for equal opportunities and strive for inclusive digital empowerment for all. Together, we can create a future where everyone has the tools and resources to thrive in this increasingly digital world.

Thank you for joining us on this informative journey. Until we meet again, stay connected, stay informed, and let us work together to break down barriers and build a more digitally inclusive society.

-The EDUINFORMER Editors