

## **DIGITAL PEDAGOGY AND EMOTIONAL INTELLIGENCE**

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### **Abstract**

*In this article, I attempt to explain, how pedagogy is important for successful learning in online education? It has been realised by the teachers, academicians, and researchers that, pedagogical aspects are momentous for holistic development of the students. With the advent 'Digital Education' encompassing online teaching, reforms towards updating the pedagogy is the need of an hour. This new version of pedagogy is referred to as Digital Pedagogy. The various challenges in digital education are associated not only to availability and effective use of the state-of-art technology, but also to the mindset of fellow learners. Usually, students' performance in online learning is understood in terms of their readiness to adopt and cope with this approach. Connecting the readiness of students for online education with their competencies of using technology is half truth. The remaining important half deals with psychometric aspects of students' preparedness for the online learning. In this regard, students' emotional intelligence can be considered as an element of their readiness for the online education. Understanding feelings of others is fundamental to communication, which is obvious in traditional class room, face-to-face teaching. However, experiencing compassion online is more challenging than face-to-face communication, due to lack of immediate feedback of seeing physically someone's facial expressions and/or body language. Therefore, it is important to develop a new set of skills that will facilitate learning to understand and communicate emotions in the context of online teaching, thereby bringing needful reforms in the pedagogy.*

*Key words: Pedagogy, Online teaching, Digital Education, Emotional Intelligence*



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### **Introduction:**

The COVID19 pandemic is expected to bring radical changes in all aspects of education. Use of Information and Communication Technology (ICT) for education has been there since last two decades and has added new dimensions to the education system. All stake holders of the education system have welcomed the use of ICT, i.e. the new 'Digital Education' or 'Online education' and witnessed its effectiveness in enhancing teaching-learning capabilities. Accordingly, reforms in the prevailing pedagogy were anticipated to cope with the technological developments, enabling use of ICT, to make the digital education more significant and meaningful. This has given birth to new pedagogy, referred to as "Digital Pedagogy" or "e-Pedagogy". One of the striking features of the digital education is its applicability over wide range, encompassing primary to higher education sectors. Despite unprecedented advantages offered by digital education, it has a sever limitation of 'inaccessibility' to a large sector of teachers and students. In developing counties like India, due to lack of requisite technical infrastructure coupled with affordability, digital education was enjoyed only by privileged students and teachers, mostly from the urban areas.

The inescapable COVID19 pandemic has compelled all the stake holders of education system to see that digital education accessible to one and all, which is need of an hour. Accordingly, from last three months, various initiatives have been taken by the educational institutes, teachers, students, and parents, addressing various allied questions such as, what is present *state-of-art* technology?,

what are the issues related to preparedness for online education?, how to develop e-pedagogy and policy for implementation of digital education system over a wider scale?, and so on. Most of these activities are in terms webinars, wherein vibrant and brain storming deliberations were conducted. Some of the important points of these webinars were/are,

- i. What is digital education? How many of us (teachers, students, and parents) are aware of it? How many of us know about the various online teaching platforms like e-pathshala, SWAYAM, MOOCS, NPTEL, etc.?
- ii. How 'techno-savvy' or 'tech-savvy' we are? Which necessary skills need to be acquired to cope with the digital education? What kind of technical support is required for it?
- iii. How to use various platforms for online education and how to use software for preparing online/virtual lectures (videos)?

Most of the webinars are mainly focused on the potential of technology for online education, application of new features in online courses, administrative and organizational characteristics of online education. Despite the increasing scope of online education, it is noticed that there is a severe lack of information about the pedagogic and psychological aspects of online learning. Very few sessions were dedicated to research carried out on Digital Education. Although availability of necessary technical infrastructure and skilled manpower (teachers and administrators) is very much essential for wider use of Digital Education, the mind-set of teachers and students plays a vital role in making Digital Education more effective and productive. *I would like to state here that "Connecting the readiness of teachers and/or students for online learning with their competencies of using technology is half truth, the remaining half deals with their psychometric aspects of preparedness for the online learning"*. Therefore, it is very essential to understand the connect between technology and mind, i.e. in another words, connect between digital education and emotional intelligence.

#### **Discussion:**

##### **Emotional Intelligence:**

It is well known that, education is indeed not just the transmission of information, the human behaviour, especially its emotional part, plays a crucial role in the teaching-learning process. In order to understand, why a student possessing a high class of intelligence quotient (IQ) does not necessarily guarantee success in the classroom, psychologists and biologists revealed that other skill sets, required to process emotional information, play important role in synergy with the IQ. In this context, a term "Emotional Intelligence (EQ)" was first coined by John Mayer and Peter Salavoy (1990), which then was popularized by Dan Goleman through his book "Emotional Intelligence" (1995). Goleman expanded the four-branch system of EQ proposed by Mayer and Peter, and put forth its five essential elements, which are (i) **Emotional self-awareness:** knowing what one is feeling at any given time, and understanding the impact those moods have on others, (ii) **Self-regulation:** controlling and/or redirecting one's emotions, anticipating consequences before acting on impulse, (iii) **Motivation:** utilizing emotional factors to achieve goals, enjoy the learning process and persevere in the face of obstacles, (iv) **Empathy:** sensing the emotions of others, and (v) **Social skills:** managing relationships, inspiring others and inducing desired responses from them.

It is interesting to note that, Golemans' book was not only useful for entrepreneurs but also had a profound impact on education. Educators recognized that EQ is important to learning as IQ, and as a result, thousands of schools throughout the world have included "Social and Emotional learning" in their curricula. Moreover, in some the schools, courses focused on developing students' EQ are made compulsory. Since then, a lot of research work, aimed to understand the role of EQ, its influence on teaching-learning efficiency and holistic development of student, has been carried out worldwide. The results of these studies have significantly contributed to timely reforms in pedagogy and curricula.

In a research paper published by Konstantina Chatzara et. al. (2012), in a book entitled “Research on e-Learning and ICT in Education”, the authors have proposed use of an agent, represented by an animated synthetic character, to support the emotional connect in online education. This virtual agent makes use of expressions, gestures, and body movements to communicate with students while ‘talking’ to them through oral and written language. In 1992, for the first time, Bates and Elliot had introduced agents with emotional behaviour. An emotional agent ‘Baldi’ was created by Massaro et al. (2000), who could motivate students for more learning. Burleson (2006) introduced a learning companion in a problem-solving task application, aimed to coordinate the relationships between affect and tasks. A system based on probabilistic relations between causes, effects, and emotional states of the user was developed by Conati and Maclaren (2009) to shed more light on emotion-machine communication. Beale and Creed (2009) had reviewed the influence of emotional agents on users’ attitude, perceptions and behaviour, addressing whether this impact is domain-related, which kind of emotional expression will provide more effective result. Based on the in-depth analysis, the authors have provided suggestions and general guidelines for future research. Recently, Bykov and Leshchenko (2016) have discussed theoretical and methodological principles of digital humanistic pedagogy, the science about the laws of creating a positive integrated educational reality as a result of the convergence of physical and virtual training spaces. Very recently, Buzdar et. al. (2020) have investigated psychometric aspects of students’ preparedness for online learning. The study was carried out on a sample of 432 learners, Wong and Law emotional intelligence scale (WLEIS) and online learning readiness scale (OLRS) as tools to collect the required data. After careful data analysis, with the help of regression coefficient, the authors concluded that variance in students’ readiness for online learning can be greatly predicted from their emotional intelligence.

#### **Emotions in Education:**

While designing effective learning environment for online education, it is necessary to consider the emotional aspect of learning and how it is related to the user’s attitudes and behaviours. It is well known that, the learners are affected by cognitive, social, emotional, interpersonal, and cultural factors. The emotional factors constitute a complex system that is subjective and influenced by several interlinked factors. These are determined from individual’s appraisal of an event and are related to individual’s beliefs and attitudes. In response to the development of strategies helping students to build sound digital competence, Cartelli (2010) has proposed a framework for digital competence assessment. This framework is based on three dimensions namely, cognitive, affective and socio-relational. The cognitive dimension is made of three main sections: technological, verbal-linguistic and logical-mathematical, all under the umbrella of the categories of space, time and causality.

While operating in a learning environment, emotions are generated both from cognitive process of appraisal and from the interaction that takes place within the learning environment. Student’s learning performance is enhanced in environments where they can develop a positive emotional communication. Research has shown evidence that positive emotions improve creative problem solving by altering the cognitive context, in which cognitive activity takes place. Positive emotions increase satisfaction levels for the same learning material and accommodate cognitive process that leads to better learning performance and user satisfaction. Often students’ like or dislike of a module at school is influenced from teacher’s behaviour, either they don’t like the teacher, or they don’t like the module. Negative emotions influence their achievements. Therefore, effective learning systems need to accommodate the emotional factors of learning, as student’s perception of their teachers’ appraisals and support can play a significant role on their academic success. It is observed that students, who feel that their teachers care for them, are more engaged in the learning environment.

In traditional educational settings such as classrooms, the physical appearance of the educator can serve for this emotional communication between learners and educators. In the online learning environments, emotional element can be brought through the emotional agents empowered with rich multimedia functions, enabling them to represent certain emotions. These agents can move different muscles in face and body that respond to certain expressions, and via facial expressions, hand gestures, and body movements, they communicate with the learner. At present, replacement of human by emotional agent is almost forbidden, due to the variety and complexity of emotions involved in learning. Moreover, the emotional interaction that takes place between learners and educators are very complicated, and impossible to be represented.

#### **General guidelines:**

“By 2030, India is set to have the largest working-age population in the world. Not only do they need literacy, they need both job and life skills. The government is currently working on a new national education policy. ....”, which was said by the Hon’ble Finance Minister Mrs. Nirmala Sitharaman in the parliament. A draft version of the policy outlines the important role online learning could play in reforming India’s education system and expanding access to higher education. The policy encourages Indian institutions not only to develop their own online programs, but also to recognize and award credit for online programs offered by foreign institutions.

In the context of aforesaid remarks, based on the results of research studies carried out on strategies and/or frameworks for development of effective online education system, and e-pedagogy, so as to overcome its prevailing limitations, following set of guidelines can provide plausible path ways. These guidelines are classified into five groups, which are the core components of online education system.

#### **1. Stake holders (Teachers, students, parents, educational administrators):**

- Teacher/instructor should serve as a Role Model. In order to effectively establish and maintain an active learning community, the instructor must establish his or her teaching persona and maintain it throughout the course.
- The teacher should know the expected outcome of the online course, addressing what will be expected of the learner and what expertise level is required to certify the learner, after finishing the course?
- Survey student interests, their technical skills in handling electronic gadgets (smart phones, tabs, laptops, pcs, etc.) and learning capacities. Try to create a safe course environment.
- Let the students get to know you and each other. In the online environment students may be reluctant to work with others. In order to overcome this shortcoming, emphasise on ‘build in opportunities’ for the student to share their knowledge and experiences. Furthermore, create social opportunities for the students, and multiple avenues for interaction and engagement.

#### **2. Technology and allied infrastructure:**

- Try to make use of ‘user-friendly’ online learning platform,
- Ponder on the availability, accessibility, and affordability of the required technical infrastructure to be used for online education.
- Make use of multiple channels (emails, face book, what’s up, etc.) for information communication.

#### **3. Course Content:**

- First and foremost conceptualize how the course needs to be structured and organized. Storyboarding is an incredible method to construct the course structure.
- Try to group content into coherent and logical modules. Grouping the data into small sections makes it simpler for the learners to understand and gain proficiency with the learning materials.

- Try to limit the modules to 8-10 pages. It will enable the student to feel a sense of improvement and progress, as lengthy modules may cause the student to lose attention.
- Try to incorporate interactive activities, additional to the course structure, throughout the course in a strategic manner. An excessive amount of activities may deviate the learner from desired goals. A standard guideline is to incorporate an activity or movement after every third page, with one main activity for every module.
- It is best practice to incorporate pictures wherever needed, and whenever possible. By utilizing pictures to highlight certain pointers on the page, it is possible to draw the learner closer towards the subject and he/she will most likely be able to understand the concepts within the learning material.

#### 4. Page Design:

- Try to make navigation manageable and simple to use.
- The page appearance should not obstruct the learning process. If a page has a complicated design or is frustrating for the learner, he/she will lose interest in the course.
- Try to have right balance between textual information and graphics. Illustrations are an incredible asset for e-learning designers, however utilize designs carefully.
- Try to avoid excessive amount of text-based content on a page.
- Try to make use of 'bullets' or 'numbers', which guarantee a more noteworthy retention rate for the learner, facilitating he/she to identify the key points thereby developing better understanding.

#### 5. Content Engagement:

- Content engagement is critical in online learning. An excess of engagement can dominate the learning objectives, while too little engagement can result in the learner losing interest in the topic.
- Incorporating activities or events inside e-learning can make up for the absence of an educator.
- Try to utilize hyperlinks for additional concepts, explanations, or definitions.
- Try to incorporate intelligent designs i.e. interactive content. Incorporating interactive content helps the learner to undergo a hands-on learning experience that quickens the learning process.
- Utilizing animations i.e. emotional agents will also achieve an equivalent goal.
- Try to supply extra choices/options for the learner.
- Try to leverage tests, quizzes and skill assessment reports. Systematic repeated quizzing integrated into learning is hard to pull off in a face-to-face classroom, but it is easily done online. A practice-oriented approach intentionally directs more student time toward applying information instead of watching presentation of content,
- Emphasise on students to spend more time retrieving and less time reviewing. This also serves the purpose of "checkpoints" for the learner to decide whether they should proceed ahead with the course or go back to previous points and study the data once more.
- Make sure that exercises focus only on the course objective.
- **Finally, remember, "Don't let technology eclipse the course objectives".**

#### Conclusions:

The COVID19 pandemic is expected to bring radical changes in the education system. In order to stop proliferation of Corona, society has adopted the new normal, one of it is social distancing. It is one of the biggest obstacles in continuation of traditional classroom teaching-learning process. The only plausible remedy in prevailing situation is Online Education. However, owing to the dearth of well resolved theoretical background, that would provide teachers with guidelines for online teaching, all the stake holders of education system are in state of confusion. Unless the stake

holders are made aware about application of didactical and methodological principles of online education, its enforcement to all sectors may result in frustration.

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