My Rendezvous with Technology

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ABSTRACT

My rendezvous with technology started way back in 2012, but till March 2020, I had not made much progress. Starting from March 2020, I have been gearing myself up, to face the challenges of technology and I believe my observations worth recording.

Student reaction for this online instruction was quite unexpected. Student attrition was less, as the learners were excited by self-paced learning, that caters to their varied learning styles.

The teacher also could achieve the desired learning outcomes more effectively and manage a large class with ease. This enables achieving the futuristic skills of teaching the millennial learners.

Keywords- Psychological rendezvous, technology, observation

"Technology will not replace great teachers but technology in the hands of great teachers can be transformational."

- George Couros

I. Introduction

My rendezvous with technology started way back in 2012, when I was involved in content testing of RLOs (Reusable Learning Objects) for the IDRC PANdora Sub-Project of University of Madras, under Dr. Bharathi Harishankar. From 2012 to March 2019, I had only visited Coursera and had done only one NPTEL course; anything online had always eluded me.

Between March 2019 and March 2020, with a switchover from Arts college to Engineering college, I learnt to manage the smart classrooms, the institution's web portal and the CAMU app on an everyday basis. Enterprise Resource Planning (ERP) software group was guiding us throughout. With strong institutional support, I attended many workshops which gave me ideas to create a blog, a web page and a google classroom; to use apps like Hot Potatoes and tools like RubiStar; and to know the functioning of a recording studio. With the aid of my tech-savvy colleagues, I selected effective websites like examenglish.com, TED and Youtube videos, and used them on a regular basis in class.

Considering the impact of technology in the classroom during this time, from the perspective of the students, I observed that, with technology, the students persevered with better motivation, at their own pace. The desired learning outcomes were also achieved, since their varied learning styles – aural, visual, verbal, physical,

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ISSN: 1475-7192

logical, social and solitary – were catered to, through technology. The hyperactive millennial learners just loved the instantaneous feedback and the enriching learning experience.

Benefits accrued for me, the teacher as well, with the use of technology. Blending on-line and in-class components, I could manage with ease a large class, engaging the attention of the students, for a longer period of time. With plenty of teaching resources readily available online, I gained more time for other academic and research pursuits.

Still, I had my reservations and challenges as well. Re-designing online materials was needed to suit the needs of students and the requirements of the institution. For example, when I exposed the students to varied templates for writing resumes, their exam-focussed presentation suffered. Further, their output seemed a bit mechanical and not personal. At times, students were carried away by the inessentials and required constant monitoring.

While the bright students took off, bringing out their best creative potential, the slow learners seemed confused by the diverse perspectives, and needed personalised attention. At times, while availing online sources, both teacher and students seemed to miss out on the satisfaction they get when a job is well done in the face-to-face mode.

But after March 2020, things changed quite drastically. As some geek predicted, the scenario became one where "Technology will not replace teachers, but teachers who use technology will replace those who do not." What earlier seemed an option worth exploring became mandatory after the COVID lockdown. Bristling up with survival instinct, I made my plunge into the world of technology through the Moodle Platform, with asynchronous training given to students through personal instructional videos made with Screencast-o-matic.

Challenges faced during these hard times were umpteen. Giving lectures with no audience was an eerie feeling in the asynchronous mode, but I managed well, as I was sure of my content and delivery. But the technology part greatly staggered me, during both preparation and execution. It was time consuming in many unexpected areas, like, recording, uploading and getting sharable link. Administering online quizzes, setting rubrics for evaluation, checking status of completion – everything was a struggle and a challenge. Bandwidth speed and reliability made expectations from higher-ups seem unrealistic and unmanageable.

Further, since no one solution is available for all needs, I had to multi-task with Moodle, Google Classroom, Canvas, Zoom etc. But over a period of time, clarity came over a few names that had confused earlier, like, Learning Management Systems (LMS), Content Management Systems (CMS), Video recording tools, Editing tools and Assessment Tools.

Addressing these challenges became possible mainly by the technical, financial and moral support rendered by our Management. Cross training was started on Moodle, immediately after the lockdown. Through foresight, financial support for undergoing IIEECP (IUCEE International Engineering Educators Certificate Program) had already been provided. Technical support 24/7 was given by knowledgeable colleagues through Teaching Learning Centre (TLC). This enabled documenting problems and gaining step-by-step solutions easier.

Starting from March 2020, I have been gearing myself up, to face the challenges of technology, following the role model of IIEECP, a course which is being offered in a blended format. It includes face-to-face

ISSN: 1475-7192

sessions, asynchronous online modules, coupled with regular synchronous online sessions. I started observing how effectively all this is being done – with regular webinars, systematic assignments, clear rubrics, instant feedback, relevant study material and objective assessments – through the platform of Canvas. The in-absentia resource persons, I noticed, also manage to connect well, through their commitment and concern. They have made me think and write my assignments, thereby successfully sealing plagiarism as well. All these observations gave me a clear understanding of how online teaching could be done effectively and I ventured out into the world of technology, with this as a vantage point.

Handholding the students, who were also new to this mode of instruction, I embedded questions in my video lectures, provided weekly reading assignments and assigned practice exercises. A whatsapp group compensated for lack of interaction. Going soft to begin with, I allowed multiple attempts in online quiz and took the highest score. At the same time, unless and until that day's work was completed, the students were not given attendance.

Student reaction for this online instruction was quite unexpected. They were excited by the novelty of the process. The words of Anil Kulkarni: "The students are ready and hungry for using modern techniques, the limit is instructor's desire and energy" sounded very true. Being millennial learners, they were comfortable with technology. Even regular defaulters surprised me by their active participation, be it submission of online assignments, attempting of quiz, audio/video recording of presentations and group discussions. Student attrition was less, as the learners were happy with the availability of content, which they could revisit and learn at their own pace, in the comfort of their homes, anytime anywhere.

I created my own video lectures to avoid copyright and course ownership issues, and to make it student-specific. Planning well ahead, I managed to keep up the quality of instruction. I identified "TIPS to Increase Reading Speed" as a suitable learning item for my very first three-minute video-recording. I made this as a kind of a Flipped class, where the students practised at home certain strategies on their own, and came better prepared for following other complex comprehension techniques in the following sessions.

Following the ARCS (Attention, Relevance, Confidence, Satisfaction) model of Instructional Design, created by John Keller, an American educational psychologist in the 1980s, my preparation of Learning Outcome was formulated for the online video lectures. First I grabbed the attention of the students and initiated motivation by bringing in an Inquiry arousal stimuli. I asked them if they were given an opportunity to choose between a bulky volume and a thin volume of a certain text, which one they would prefer. This question was to rouse their curiosity, to make them think and also to set the stage for more learning. Orienting them to their goal, I then brought in the relevance of following this practice of speed reading. I highlighted how in the present course of their study, they might be expected to read many bulky volumes of study materials, for which speed reading is a must. I pointed out that in future also, this practice would help them to complete voluminous works in less time at their work place. I then built up their confidence by providing three simple and easy-to-follow tips, the practice of which would increase their speed in reading. A link to assess and improve their performance, was also suggested. A sense of achievement gained, on seeing their words per minute improve day-by-day, the students gained the much-needed satisfaction through intrinsic reinforcement. I planned to time my recording to a maximum of four minutes, taking care to pace my voice in such a way that it would be much easier for all students to follow.

ISSN: 1475-7192

Still, the technology part was a challenge. Designing the video clip was much easier compared to recording, because of my lack of awareness of technology. I gathered some useful guidelines from my colleagues who have already harnessed technology. To record the video clip, I planned to use the web-camera on my computer. Recording in the privacy and silence of home made me camera-ready and enabled me to learn the nuances of technology by trial-and-error method. Initially, the voice was not much audible and I had to use a microphone. I had to adjust lighting to avoid reflection in spectacles and the location also was a cause of concern. A little shuffling of furniture and propping the laptop at proper elevation helped. I chose a time when external noise was minimal and avoided gaudy colors and makeup. A dark backdrop also helped. After a few rehearsals, I got a reasonable output. As of now, I have a Youtube channel of my own with nearly twenty recordings and this sounds exciting.

This creation of personalized video learning materials will be helpful to achieve futuristic skills of teaching the millennial learners. I am sure that this learning material, specially designed keeping my students in mind, will be a sure indication of my concern for them and will strengthen the rapport between us. Also, I feel that these type of videos give a voice to the voiceless, and bring to limelight the talents and passion of many educators. In the course of time, I have implemented synchronous teaching as well.

In the article *Navigating the Bumpy Road*, Felder and Brent discuss the perspectives of the teacher and the taught, on a learner-centred classroom. I believe that all the challenges which they had mentioned in their article, could be overcome, if the teacher adopts the *Two Dimensional Model* of Joseph Lowman, who advocates "intellectual excitement" and "interpersonal rapport" for the benefit of students. Online teaching really helped me materialize this. The real challenge, in my opinion, to Student-Centered Instruction (SCI) is the problem of attitude – not that of the millennial learners who adapt fast, but that of the traditional teacher who is slow to change. As Alvin Toffler, an American futurist, rightly points out:

"The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn."

I am still preparing myself to be self-dependent and future-ready. The instant cumulative feedback we can get from a live interactive audience, by Show of Hands or Poll Everywhere, is quite exciting. I am planning to use lectures embedded with lab demos shortly and avail cloud technology to store and retrieve my files. My curiosity is roused by Clicker, Camtasia, OpenShot Video Editor, Hangouts and Survey Monkey, either by their features or names, and I have started exploring them. I am also looking for a contingency plan for audio/video failure, as and when I go live.

There are challenges still, but I really wonder how I am ready for them within such a short span. I have completed two courses from Coursera and two more I am doing. In the coming days, I plan to choose such activities that will hone the "Multiple Intelligences" of the students, as advocated by Howard Gardner in his 1983 book Frames of Mind. I now encourage my students as well to take up Coursera / NPTEL courses. The avenues that are open to them seem endless, and the teacher seems only to be a torchbearer, showing them the way. I understand that there is no one-to-one solution for all classroom problems. Human nature being fluid, the teacher has to keep turning the kaleidoscope, so that every time a new design pops up.

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