

## STUDENT-LED COMMUNITY INITIATIVES TO SPUR POST-PANDEMIC REVIVAL: A CASE STUDY OF ENGINEERING STUDENTS IN EAST INDIA

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### ABSTRACT

The youth of any country are charged with revival and rescue of culture, industry and economy of the nation. India being one of the dominant youthful nations by population and age distribution, besides being the second most populous country in the world, is a case study for multiple disciplines. Among them are technology, finance and development studies. A review of activities by locked-down students of an East Indian university revealed a diverse range of activities connected with their academic and personal lives. By analysing the information provided by them, the various factors at play were identified. It appears from the results that the worst health crisis in recent history has brought out latent capabilities in a hugely talented youth mass. It is to be seen how they channelize this unlocked power in their professional avatars.

**Keywords:** Engineering, Lateral Thinking

### 1. BACKGROUND

#### An Altered Generation

*“My whole family was COVID positive during the second wave. After my father died all the responsibility was on me and my sister. I did everything I could in my power to help my family and my uncle’s family as my uncle died due to COVID too.”*

We have heard such stories of struggle and sacrifice by students of various ages over the years. There have been instances of bravery in the face of danger, where the youngsters saved the life of fellow humans. We rewarded them with Medals of Valour in civilian ranks at various levels.

We also find some school-going people display commendable skills in setting up initiatives like clubs, groups, organisations, movements and campaigns to create awareness and action-plans that impact the society in a productive manner. From Greta Thunberg to Malala Yousufzai, the media outlets are gaga with praise for such do-gooders.

Finally, we have the invisible mass of supporters who push such activities with validation and appreciation on social media when they network with each other. A pleasant by-product of the Like-Share phenomenon sweeping our digital consciousness is the promotion of charitable actions at community level. It manages to become visible even in the smoke of personalities and celebrities fuelled identity search.

#### Engineering: The Largest Visible Student Bloc in India

India being one of the dominant youthful nations by population and age distribution, besides being the second most populous country in the world, is a case study for multiple disciplines. Indian universities are teeming with engineering undergraduates who are academically ahead of average undergraduate. The lead is based on aptitude test, skills and exposure to technology-powered pedagogy.

When 1 million engineering and allied stream graduates come out of 7100 technical institutions each

year<sup>1</sup>, we are looking at the most potent attraction in the eduscape of the sub-continent. For a variety of reasons, primarily employability, this sector receives a big chunk of the talent cake that is baked in the much-regulated high school system of India.

Being students of technology, they are all over the social media; but they also dominate the mass entertainment channels and cultural events. With visibility and identity being the buzz words for teenagers, such behaviour is not only expected, but also celebrated. With sufficient encouragement and independence, their clout is accepted by the market, design and consumables industries.

Despite such wide-ranging presence and purchasing power, it is not their money that they spend or invest. The Indian society incentivises the students of the family with cash (pocket money), vehicles, gadgets and permissions for their academic accomplishments. Traditionally, such trends are observed in middle-income group, the primary background of engineering students.

When the lower-middle income group observed the upward mobility of the engineers from among them, acceptance of engineering became a choice course therein as well. With 95% of the 3500 engineering institutions being self-financing in mode (Only 5% are the comparatively subsidized IITs, NITs & IIITs)<sup>2</sup>, the rural, poor and marginalized communities find it challenging to participate in this vertical of education.

Though the cost of an engineering degree (\$8,000 – \$35,000)<sup>3</sup> is prohibitive for such disadvantaged groups, it manages to squeeze through in certain cases. The fact that these income classes co-exist in the colleges and universities shall be of relevance when we analyse the survey responses in the upcoming sections. However, financial means are not the only parameter to gauge community service; rather it is of secondary importance.

#### The Rationale for the Students’ Initiatives Survey

KIIT Deemed University was listed as an Institute of Eminence for its focus on academics and research, attracting a significant section of engineering aspirants

from Eastern India. Every year, it admits around 4000 students to its engineering degree and diploma courses – resulting in a floating population of around 16,000 engineering undergraduates in the campus.

The author being witness to the academic upheaval that accompanied the successive shutdowns, lockdowns and restrictions caused by the pandemic, was also interested to profile and showcase the non-academic activity of a section of this energetic student mass. The assumptions made about their activities (as reflected in the questionnaire<sup>4</sup>) were borne out of regular interaction in online classes and one-to-one sessions.

Some of the stimuli that shaped the queries were:

1. Decreased attendance
2. Delayed/Missed assignments
3. Digital Fatigue due to
4. Drastic fall in Attention Spans
5. Change in Communication

**2. METHOD**

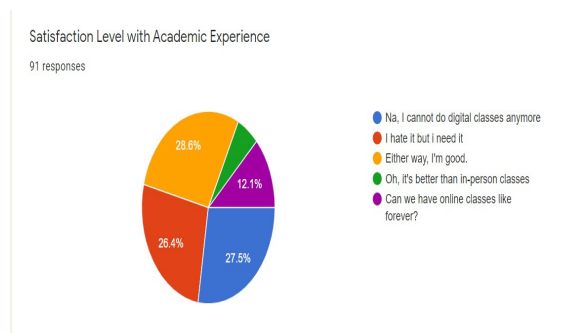
In order to ascertain, observe and measure the individual and organisation level activities of the target group, the author designed a questionnaire. This set of questions were worded in an appealing way to entice the student into responding. It also contained the responses in template format with space to file longer replies if required. The length of the survey was kept to a bare minimum to meet attention span limits.

A total of 90 responses were received at the time of analysing, with all entries being unique and 50 of them anonymous. Given the short response window of 24 hours, this was reassuring as the answers were descriptive and complete. While the population size doesn't appear large enough, the secondary polling on Telegram bore similar numbers. This validated the assumptions and the structure of the questions to be well-mapped with the temperament of the respondents.

**3. RESULTS AND DISCUSSION**

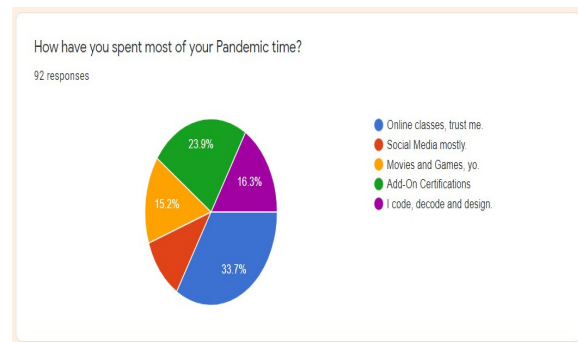
**The State of Academics and Scope for Non-Academics**

The fatigue arising out of exclusive electronic educational engagement for a period of 18 months without a break is apparent. With classes, tutorials, exams, viva and even contests taking place online, the digital tethering was total. The respondents have grown wary of the dependence on screen for learning as seen in the graphic below:



**Table 1.**

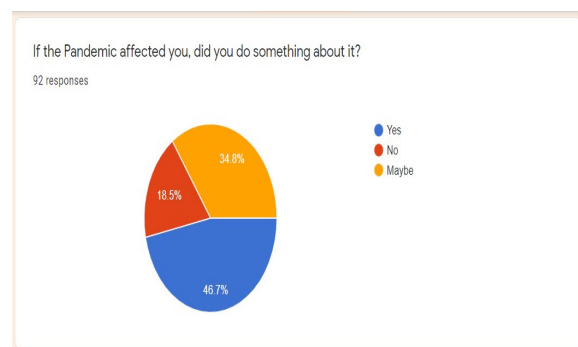
It is assumed from personal interactions with the learners that the introverted learners prefer staying behind a screen than attending in class sessions. Additionally, it was detected that, it isn't the screen they were uncomfortable with; just the lack of interest in academic content that pushes them towards interesting engagements like movies, games and virtual socializing. The responses can be differentiated thus in:



**Table 2**

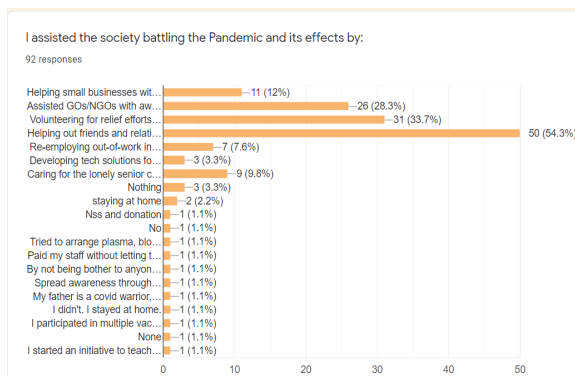
The productivity can be pegged at 74% by combining classes, certification and self-learning and practice segments. We may review the online classes' percentage as they have demonstrated their lack of commitment in Table 1. Under such readings, it could be said that productivity for the respondent group was 57% (assuming half of the online learners participated attentively).

The sense of responsibility in an undergraduate is visible in Table 3 where they respond on the awareness of the task at hand. Except for a fifth who may have been restrained by friends and family to stay away from community activities due to infection fears, the rest were either aware, active or both. This consciousness of their potential and realization of that is probably due to the same exposure to mass media, social media and immediate contacts.



**Table 3:**

The shape of contribution is clearer when we review the section where the respondents were allowed to specify the nature of their service. The list of choices was appended with an open answer box wherein they could add further details. Table 4 shows how these undergraduates with access to technology, resources, contacts and skills & solutions applied their prowess to meet the deadliest health emergency ever to visit independent India.<sup>5</sup>



**Table 5**

The above table showed that an overwhelming number of learners (50+) made themselves useful by “Helping out friends and relatives by doing medical or transport duties”. This individual act of community building was closely followed by Volunteering for relief activities and assisting organisations engaged in such campaigns; the number stood at a collective 57.

A smaller number (11) also assisted small businesses (may be their family, friends or neighbours) with logistics, technology and strategy. This can be clubbed with an entrepreneurial act of re-engaging out of work individual by skilling and employing them. Together, this group comprises 19% of the respondents. Three people also reported their tech initiatives that might have been spurred by exigencies arising out of this Pandemic.

### Stories of Enterprising Engineering Students who Acted Charitably

The interaction threw up many relatable and moving experiences that is a source of much relief and belief in the next generation. Here are a few:

“I’m a NSS volunteer so we all had various groups of different regions and we had to join the respective group and provide the authentic leads of gas cylinder, medicines etc to the needful person. Also during pandemic, we went out and distributed food packages along with sanitizer and masks. Also I feed stray dogs daily as they were also affected by pandemic.”

There was mixed message from an engineering student who gave his/her best but ended up distressed by it all:

“Helped in multiple awareness campaigns, helpline management, resource management. Taking calls directly from the families of the victim was the hardest possible thing, finding the resources from them also didn’t felt any good... it was like we all were robots just trying to find a needle in a barn of haystacks... heard a lot of bad news about someone from our age group, suffering..”

Some contributed by using their tech skills and showed their humane nature too: “Joined an NGO developed a react web application to trans send covid relief, like hospital beds,

medicine or oxygen cylinders, feeded nearly 200 stray dog who were affected by the pandemic using crowd sourcing, tried to develop pure medical oxygen plants but failed due to safety issues.” In a case that is representative of many other such situations, we got to know of a hero/ine: I was part of a group which was assisting people with authenticating Oxygen suppliers name. We contacted various NGOs, Red volunteers and collected authentic oxygen suppliers’ name of all districts of West Bengal and contacted them personally to confirm whether they can provide cylinders in nights too. Around June, I lost my grandmother and at end of July, my whole family was COVID POSITIVE, situation was worst, but we kept faith, we recovered and everything is quite ok now.

It gave impetus to some hidden talents like this tech-teacher. When I was in class 9, 10th in my school. I was never satisfies with the way teachers taught programming. It always used to be mugging up things and passing the exams. I struggled a lot with it. So, it was always a passion for me to bring these concepts to students in an interactive way so that they actually understand the concepts behind it rather than simply learning it. And during pandemic I invested my time in teaching school students, via online platforms like zoom. Later on, many more students reached out to me and most of them secured > 95% in ICSE 2021 examinations in computer applications. These responses are on an excel sheet that can accessed here<sup>6</sup>.

### What the Future holds for them and their World

Browsing through the responses, hope is rekindled that we are in the company of responsible, resolute and reassuring bunch of engineers. They are utilising their technical knowledge and humanitarian tendencies to giving to the society before the society completes its giving act.

There are inspired souls who have figured out what to do next in life with respect to community service. Here’s an example:

I am under the aegis of a club named Rotaract Club of Calcutta University; where we have provided community services like flood relief, health camp, food drive for disabled women, distribution of sanitary napkins and menstrual hygiene to the orphans, tree planting and fixing collars to street dogs. And in future we will be doing a project during durga puja where we will be visiting pandals with special communities like LGBTQ’s and red light area’s residents for connecting them with the society by removing their social fear of acceptance due to their identity. Professional development includes participating in the debate, extempore and GD for gaining better communication and social skills. And most of all spreading mental awareness of “It’s okay to not be okay” through campaigns and vocally.

These are quite promising trends and such youngsters should be promoted in social media, real world gatherings

and in their social circles. We may see more such crises in future owing to climate change and refugee displacement. This talent pool should be trained to contribute in kind to meet humanitarian emergencies of any colour. Shackles of racial, linguistic and class identity need to pave way for a universal community of cooperative humans.

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