Equity in Online Design Education - Everything Is Design

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Abstract:

The current need for online classes has contributed to a growing list of problems faced by students and teachers alike; however, it also allows for a new kind of accessibility and adaptation. Perhaps even a transformation in the world of design education. Numerous problems arise from the limited window of interaction that a screen affords, and students at home face several difficulties both in keeping up with classes and working on assignments, owing to various home conditions and accessibility issues. Despite this, several possibilities have emerged in the sudden availability of online courses exemplified in how renowned institutes, like Harvard, have opened their virtual doors, presenting opportunities to students from varied backgrounds worldwide. In this paper, we will look at primary and secondary experiential data from students and teachers currently engaging in online education, allowing us to fully understand the scope of the problems faced and the range of new opportunities and solutions possible. Despite prevailing negative perspectives on the digital age of education, several case studies and turn the situation around to make design education accessible in a way that it never has been before. As such, design is a profession that requires optimism, resourcefulness, and the desire to adapt. The need of the hour presents us with the perfect opportunity to push these traits and explore modular education and moldable design briefs to accommodate existing and new students alike.

Introduction:

Despite the emergence of several new design schools each year, and a rapidly growing interest in the subject, design still remains inaccessible to most Indians. While there are several reasons for Indian students not pursuing design - ranging from social stigma, fear and misunderstanding of the subject - one such concern is, and always has been, the towering fees. If you were to average the first year B.Des fees of the first 100 design colleges available on Collegedunia [1], ordered by rank, the amount would come up to over 1.9 lakh. This list includes NID, IDC, Srishti, NIFT, MIT, Symbiosis and CEPT among several others, and the fees only increases after your first year - which makes the average total cost of pursuing design come up to around or above 8 lakh.

If this doesn't already sound like an astronomical sum - the average annual expenditure on college education in Rural India is Rs.5,240 and in urban India it increases to Rs.16,308 [2]. For design education, the average annual expenditure, based on these first 100 colleges, is almost 12 times the amount of even the urban average. While the expensive nature of design education isn't news to any of us, it is a growing concern to even existing students who are struggling to pay their fees during all the financial strain of this pandemic. More and more people begin to get cut off from design, even as a great number of people begin to show interest in it, and many new courses emerge on both online and offline platforms.

What this means is that a very small percentage of Indian students feel welcome into the world and language of design, and although those that do find themselves pursuing it are taught that design is meant for the masses - we usually end up designing for only the more privileged layers of society. Even when we do engage with social causes or design for the 'masses', we do so most often without root level understanding and often without collaborating with the people we're designing for [3]. A lot of the aesthetics of modern design education in India are themselves very western [4] which is not horrible in every case, but it does mean that our lenses might be clouded by what we think might work for our audience but in reality, doesn't.

Purpose:

A lot of what design preaches is empathy, and attempting to gain a holistic understanding of what, who, how, and where we are designing for. The design process calls for deeper engagement and oftentimes 'jugaad' or resourcefulness that makes the most of what is available. While this process needs continuous work, consideration, and development in our own practices, and has been limited by physical bounds, perhaps there are other ways to use distance education to create new learning opportunities for students and educators alike.

The proposition that this paper attempts to make for opening the doors to design education for a wider audience doesn't only mean making it accessible to a greater number of aspiring design students by modifying the pedagogy and reducing the cost of online education - it is also a push in the direction of bringing design thinking into the lives of students from a variety of disciplines, and preferably from the school level. And this doesn't mean three day design thinking workshops, it implies giving students a good and hearty look into the design process and how it works. The hope of doing so is that it allows for students to develop tools for individual thinking and invites for more thoughtful and creative interaction with the world.

However, there have already been several hurdles in online design education even among existing and well initiated students, and before we can find a way to address them, we may not be able to successfully expand the horizons of distance learning for design. Therefore, in this paper, we first discuss the current situation of online design education from both a student and faculty perspective, as well as by looking at perspectives of school educators, and later suggest a variety of accessible possibilities.

Methodology:

In order to understand the scope of problems that emerge from online classes, I conducted informal interviews with 13 design students and 4 design educators, along with 3 school teachers working with a variety of age groups in order to gain a slightly more holistic perspective. With the students, I wanted to know their experience of design education in general in order to frame my understanding of how this changed when classes moved online and so that I could focus on issues that had only developed or were highlighted during the shift. Since we are soon to welcome a whole new batch of design students, I wanted to understand the kind of apprehensions or difficulties students have when they first join design school, how their relationships have been with their faculty, as well as if and how these issues were resolved. Students were also asked questions about their experiences with online education pertaining to the platform, technical issues, class conduct, quality of engagement and interaction as well as class schedule and overall opinions.

Educators were asked questions pertaining to their experiences communicating and interacting with students, teaching through streaming platforms, new methods used for engagement and teaching, how they were giving feedback as well as concerns and difficulties that they'd had so far. They were also asked questions about class timings and how they were attempting to integrate more peer interaction in response to the feedback I'd received from students.

As part of my secondary research, I took a look at studies regarding online and distance education which addressed the issues that came up during these conversations, a few of which were older in order to see how one might have 'successfully' taught faraway students without as much reliance on internet resources, as well as very recent post-pandemic studies that explore the situation now.

Primary Data:

i) Student Experiences:

Common concerns expressed by students naturally had a lot to do with technical difficulties as well as the loss of connection and space.

The forefront concern appears to be the lack of interaction with and learning from classmates. Peer to peer interaction is possibly the most important part of design education and, in class, this interaction allows for sharing work and receiving honest and holistic feedback since your peers know your process as well as the result. Online, new students especially might feel a great amount of distrust and insecurity with regards to sharing their work, since these are issues common with foundation students even in classroom environments.

In a shared studio or class, discussions and conversations happen throughout the day. However, the period of interaction is limited and fairly diluted online. Even students who are familiar with one another are interacting far less than they would normally, and are not able to brainstorm or work together efficiently due to communication barriers and lesser accountability. They have lost several points of access to their seniors/juniors and this loss takes away the sharing of information between the years and a lot of student motivation.

A lot of what a student learns or engages with during their design education is also influenced by the environment and the wealth of experience and information offered by a campus or class setting, as well as cultural and extracurricular activities. Students now feel out of touch with their respective colleges and, in many cases, no longer feel as though part of a community or culture. The privacy and novelty of being in a college campus or living and being around other students is lost.

These two issues affect student interaction with faculty as well, since faculty are no longer able to approach students to see them working and have lost many chances to connect with students outside of classroom settings. The communication barriers have also, in many cases, made the process of giving feedback 'awkward' and sometimes difficult. But it's not only feedback that has suffered - as teachers themselves are learning quickly how to adapt to the new medium, classes can easily become monotonous and difficult to concentrate on. This has a lot to do also with the rather casual setting as well as the distractions and work that both students and educators have at home.

Given this ongoing adaptation to online classes, cases of classroom disturbances and interruptions have not been uncommon. 10 out of the 13 students I spoke to had instances that they had experienced either first hand or heard of from peers, in which classmates had interrupted lessons with music or noise, or students had kicked each other or even faculty members out of online classrooms. A few students spoke about how they felt that their teachers were being mistreated by others who knew the platform better. While disruptions of such a kind are entirely natural as students explore the possibilities of a brand new medium, it has caused educators immense pain along with many interruptions to class flow.

But there are, as expected, also innumerable cases of technical difficulties. Of both teachers and students who do not have access to good hardware, internet or electricity. In many cases, students who don't have laptops or have left their laptops behind, and students who have missed several classes due to these issues. There are instances where the lack of available materials or the quality of a student's computers or phones has interfered with their ability to complete assignments. Naturally, most institutions have a lot of backlogged material to catch up on, which has also meant that some students have 8-9 hour classes that sometimes go on continuously without break.

This has caused insomnia, fatigue and sometimes even depression among students who feel that these timings are entirely insensitive, and that they are unable to understand or process what has been taught to them during the day due to the saturation of content.

ii) Educator Experiences:

One of the most common concerns that was heard among educators was that they are most often speaking to a wall of silent icons during class. Due to privacy issues, most teachers are unable to ask their students to turn on their cameras and microphones for class, and this has meant that they no longer know which students are paying attention or if what they are teaching is being properly understood. Classes in design school also involve a lot of give and take between students and faculty, the learning process is a shared one and this has been considerably debilitated online.

Faculty have also spoken about increased working hours in order to meticulously organize and prepare resources, as well as meetings after class with their colleagues and superiors. There is also no distinction any more between your space of work and rest, and therefore students and teachers are both expected to be available at odd hours. The educators teaching in school shared concerns about having parents on call

who put pressure on both children and the teachers, which drastically changes the nature of the learning environment. Not all students have private spaces where they can join their lectures alone and undisturbed, and hence they often feel judged and are embarrassed to speak or share as much as they would in class. Many families, who did not have access to laptops or the internet, had children who lost out on several classes online, which teachers were asked to compensate for in their free time.

There has also been a great lack of accountability since, in a campus environment, it is far easier to catch hold of students of faculty and speak to them regarding assignments, attendance or submissions. Now, however, if a student or faculty doesn't respond to calls, texts or emails, they are impossible to get a hold of. There have been instances where students have not attended class at all for weeks, only joined calls and muted them, with even their parents left unaware. Many of these teachers either did not engage with, or were not permitted to engage with, technology in class, and have had to familiarize themselves with a whole new pantheon of knowledge.

They have had a lot of difficulty explaining more abstract concepts in class without as much active discussion and learning through doing, as is the philosophy of design. A lot of the 'doing' is lost online when students no longer have access to their studios or workshops which has not only caused concern over student portfolios but also their learning being hampered without the ability to explore and 'do'.

However, teachers are adapting and changing their approach to education by using multimedia resources and assignments to create better engagement. While faculty do seem to be concerned about the decreased real-world engagement and material constraints, they are attempting to employ new learning strategies. They themselves are concerned about the amount of time both they and their students have to spend on screen and many are looking for ways to reduce the on-screen hours. While many schools and colleges have already done so, several are yet to catch up.

Insights and Initiatives:

From my conversations and readings, it is evident that there are numerous problems with online education that demand drastic pedagogical changes in order for us to consider making these courses more accessible. With how things are at the moment, courses are not even fully accessible to existing students. While institutes like NID are promising to put together funds to help students with hardware and internet related issues, as well as fee restructuring or breakdowns, there is still a long way to go and many issues that persist.

A circumstance like this requires a great deal of empathy, collaboration, flexibility and clear communication in order for us to successfully navigate it. It is clear that both students and educators are under a great deal of stress, which needs to be alleviated in order for us to make distance learning truly successful. While both students and faculty are making their best efforts to adapt to the new medium, there is still room for more transparency and joint effort.

Through conversation and secondary research, here a few techniques from educators from a variety of fields which have received a great number of positive feedback and engaged learning:

1) Brief training modules for both students and faculty to become acquainted with online learning platforms, tools, and how work is to be shared and graded [5]
2) Being available over a variety of platforms to ensure flexibility on behalf of both students and faculty as well as providing ample support. Creating a 24 hour response system to ensure accountability
3) Keeping frequent record of faculty and student feedback and implementing feedback regularly [6]
4) Being transparent about semester/course plans and expectations and explanations for assignments, encouraging and allowing for feedback and student ideas [6]
5) Using multimedia resources to provide real-world examples, making assignments flexible and multimedia styled as well to accommodate students and encourage resourcefulness
6) Creating more chances for student lead discussions and interaction, supporting online social/cultural events and forums. Encouraging students to go to one another for doubts before coming to faculty [7]
7) Encouraging and giving platform to peer review, perhaps in smaller groups to initiate new students to the practice
8) Using online tools such as padlet to support brainstorming
9) Using the help of students and forming interim student communities which can act as representatives for better communication
10) Students turning on their cameras during classes as and when possible
11) Creating networks for data/resource/note sharing among students in order to help others who do not have stable internet access, as well as to create class summaries
12) Creating more chances for real world engagement or engagement with one's surroundings

While it is clear that a lot of work needs to be done before an expansion can happen, several of these techniques can help us when we consider designing courses for larger audiences. However, one can easily imagine that even edited recordings of current online design classes might find interested students, with consent from educators. Perhaps a D'source style portal of free or subsidized MOOCs with forums and libraries of student-created digital content.

If Indian design schools were to start offering such courses, we would need several applications of the above points, among which are the following:

1) Systems that make student-student and student-facilitator interactions easier and smoother, perhaps through multiple platforms and forums
2) Ways to sort students into smaller peer groups so that sharing and grading work is more comfortable and organized, and so that they are able to migrate to sharing work on larger forums
3) Training modules for students to use the interface, complete and submit assignments and engage with peers and provide constructive criticism. Building an online learning etiquette, similar to Coursera's method.
4) Portals/libraries where students can share notes and resources along with compressed, downloadable videos of class. Can accommodate students without stable internet as well as provide translated content, as well as alternatives for differently abled students [8]
5) Flexible assignment briefs and examples that encourage exploration and resourcefulness, as well as deeper engagement with locality and immediate surroundings
6) Systems to connect students from this portal to students enrolled in design institutions to facilitate communication and better understanding

There are numerous possibilities that we can consider, and an incredibly rich source of knowledge that we could create together - through collaboration and exploration. However, these suggestions are still not entirely accessible. They still require at least a little internet access and the availability of a smart device, not to mention, the assumption that the aspirant knows how to use the internet.

To simply suggest such MOOCs and leave it there would not be advocating for truly accessible solutions. For one, it would be drastically underestimating India's digital divide.

In the next section, we explore further possibilities.

Accessible Options:

According to data collected by the National Statistical Office, only 8% of Indian households with members aged between 5 and 24 have access to both a computer and an internet connection - and most of these households have to share laptops/computers among one another. This is not even to mention the average broadband speed in India is 36.17 mbps and mobile download speed is 9.67 mbps, internet connections are also rarely continuous or stable. Again, in order for an internet connection to work, electricity is needed. 20% of Indian households get less than 8 hours of electricity in a day, and power cuts during the monsoon are extremely common and difficult to tackle without an inverter.

Several people opt for mobile data over an internet connection, however, data packs can be easily exhausted and would be expensive to continuously renew. The Pew study of 2019 shows that only 24% of Indians have smartphones with which they can watch videos and join calls, despite a rapidly growing number of smartphone users, most of India still cannot join online classes. [9]

There have indeed been numerous state lead and private lead initiatives to bridge these gaps, with Swayam Prabha attempting to telecast e-content on DTH channels for those who do not have access to the internet. We also see several possibilities with the explorations of the HRD ministry to use All India Radio, Doordarshan and 2G networks to teach students. [10]

The Kerala Infrastructure and Technology for Education (KITE) has also been placing laptops and projectors in schools all over the state, while One Laptop Per Child (OLPC) has been attempting to provide 'laplets' to school-aged children across India [11]. There have also been several individual-led initiatives which aim to provide refurbished laptops to those who need them. [12] [13]

There is a lot of work going into making distance learning possible for children amidst the pandemic, and many discussions continue about the potential of online learning in India.

However, the arts and crafts have been unavailable to most Indian school children for a very long time. While the importance of art has been suggested and proven to empower children [14], very few children in India actually get to reap the benefits of the arts. It often takes programs and initiatives like Artreach India [15] and ScribBle foundation

[16], which make art accessible, for children to be able to enjoy these subjects and engage with artists.

Already, one can see numerous opportunities for engagement with such initiatives alone, but there are also initiatives such as ThinkZone using Interactive Voice Response and basic calls and SMS to share simple learning activities with parents for a DIY style of education [17]. Learning while doing! School ki Ghanti, on the other hand, uses calls to help children learn through stories, which bring them joy and a chance to engage with something wonderful [18]. There are so many such avenues for us to consider collaboration on a larger scaling, including Teach for India.

The aim of proposing that we implement accessible design-based courses and activities for school children is, in part, to promote play based learning for children across India. To engage them in activities that encourage and allow for their creativity without the need for a perfect end product, and to do so in ways that make best use of what is around them. With the new National Education Policy and its support for liberal education, it is easier now to imagine the possibilities of extending such courses and implementing them as, perhaps small, but regular parts of school curriculum.

With the critical thinking and creative methodology of design, children can learn to develop individual thinking that will aid them to do more empathetic and thoughtful work no matter what they end up working as in the future. By decentralizing education and teaching to explore and learn design through their surroundings, we can also hope that it helps students identify and participate in local culture and issues in a better way.

While such implementations will naturally take some time, we can imagine a near future where we can start streaming or sharing lessons with groups of children which might require one smartphone or laptop shared among 7-10 children, or even a whole class. Or perhaps we aim for ThinkZone's DIY activity approach, and help engage even parents in some play based art/design activities and projects, something that ScribBle foundation has been doing by sharing art activities with students online.

Children could explore painting or print making with endless items around them to see what kinds of strokes or patterns are possible. They could be taught about the properties of shapes through common household items, learn about the materials and crafts that are closest to them by engaging with local craftsmen or learning about material properties. Children could be informed about social and environmental causes and given tools that might help them work together and come up with ideas and solutions that they can implement in their own homes and localities - for example, waste segregation.

These are by no means revolutionary or brand new ideas, there are only new mediums for us to explore. We can take from the lessons we learn by teaching and design through existing classes, and practise more collaboration and communication ourselves. One of the greatest benefits of classes moving online is the possibilities for open-source education that emerge and have come into practice - design education as well must open its doors. This might be a powerful opportunity to learn from and teach students how to observe and appreciate their surroundings with a new lens, and therefore engage with these surroundings with a newfound sense of purpose and empowerment.

Children are, by nature, creative and curious. They often only need the freedom or perhaps the permission to explore, and such a chance can allow them to develop great appreciation and much deeper understanding of their own roots and localities. This approach embodies a philosophy very similar to Jackie Chan's in Karate Kid - of being able to learn kung-fu from everything you do and everything around you. Afterall, everything is Design.

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