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EDITORIAL

"It is really wonderful how much resilience there is in human nature. Let any obstructing cause, no matter what, be removed in any way, even by death, and we fly back to first principles of hope and enjoyment."
— Bram Stoker, Dracula

It's been four and a half months since COVID-19 dramatically altered the college atmosphere. What many welcomed initially as a break from the hectic schedules that define IIIT has morphed into a sense of longing for the lush spirit of the campus. Singular events that tended to define a semester no longer apply, as we hope for the moments in-between these singularities to come back into our lives. The moments that are unexpected, random, and even forgettable, the kind that can only happen in a tight-knit community. The start of the quarantine showed exactly that yearning - with groups popping up to recreate the most mundane of IIIT activities, imagining a virtual world where everyone was back together. Now, four months into the quarantine, the humour that helped initially feels forced. Attempts at recreating informal conversation spaces, ritualistic juice canteen trips, and meals together have lost their steam as well. For a community that often cribs about the lack of life at IIIT, this is perhaps our darkest hour. Yet, IIIT persists.

This magazine in some sense is part of that story. Working entirely virtually to produce a magazine has been challenging in unexpected ways. Like most communities, Ping! has relied on 12 AM talks and pizza dinners to accomplish tasks. The informal spaces that create camaraderie within the team are no more. After all, there's only so much conversation that one can make on Microsoft Teams while starting at the other's initials. This quarantine magazine teems with life nonetheless. Like most Ping! issues, this edition serves as a snapshot of IIIT - our perspectives and contentions. Within these pages, we explore the heated debate around the Diversity Pool, critique the ever-popular Online Judge (OJ), and explore our psyche during the quarantine. Some light-hearted articles poke fun at absurd college rules that we're lucky to not have and the movie 'Cats' (we'll let you read that one to avoid spoilers). And, there's more. Ironically, this magazine also includes an analytical piece about campus spending trends.

COVID-19 RESPONSE ANALYSIS

IIIT does not enjoy a reputation among students of being particularly prompt about - well, anything really. So it has been a shock to us - albeit mostly a pleasant one - to observe the rapid response to the pandemic and the largely rational decisions that have been taken, which has meant much more clarity for the students than most across the country can claim to have.

From a swift and hygienic campus evacuation to a seamless transition to an online semester, IIIT has largely hit the mark in dealing with the pandemic. The dedicated COVID Apex team has also been detailed in their policies on returning to campus and dealing with a potential crisis, including detailed guidelines on dealing with an eventual case on campus and restrictions to ensure minimal contact is made with outside of the campus.

Interestingly on the national front, IIIT has largely been right about most things COVID related. We were one of the only institutes - and among the earliest of those - to end the spring semester online, forgoing entirely the possibility of in-person exams. Even the then-controversial choice of holding UGEE in June seems to have been well-timed, as India's bad spell spirals out of control. The only hiccup that comes to mind is the matter of vacating hostel rooms of the graduating class. However, it too seems to have been resolved with some compromises on both ends.

Going into the next semester, IIIT seems to remain on its toes. New lecture styles have been introduced, morning class timings reduced, and central examinations scrapped entirely. The efficacy of the new system is yet to be seen but IIIT does seem prepared for most eventualities. Overall, we can see some visible advantages of not being beholden to UGC. IIITs independence undoubtedly gave it the freedom to respond to the pandemic actively, as several other universities scramble to react. As students, we are aware of what lies ahead. A luxury not currently afforded by most of our peers across the country.

A SUDDEN UPTICK IN CLUB SOCIALS

If there's one consistent trend across years in Ping!, it's the classic "club revival" article. It's been covered in several ways in the past, but this year something feels different. Historically, clubs at IIIT often functioned more as event organizing bodies than hobby communities - despite their 'club' moniker. In a year where events aren't possible, college clubs have returned to their hobbyist roots. Throughout the summer of 2020, it's been surprising to see the sheer engagement with nearly every club. The lack of a physical community has also led to new social media pages - lending the perception of greater activity. Considering the low effort of maintaining a social media page, it is not fair to confidently speak of club revival. But, the regular stream of content and interaction with the remote community seems promising. These clubs also collaborate increasingly, strengthening the remote IIIT community. The LitClub's new Harry Potter based event is perhaps at the peak of that - an event conducted with 6 other clubs! There's an entire semester left to see if these trends continue and hopefully, this isn't another random occurrence. The lessons learnt about retaining an interest in extra-curriculars should ideally continue into the future, changing the way clubs operate for the better.

THE DIVERSITY CHANNEL AND CROSS ENTRY

The other consistent Ping! topic is that of 'Cross Entry'.

Following lengthy debates last year, the student parliament had announced that some recommendations were given to the Institute. Fast forward a few months later, we wonder if those recommendations have come to fruition. As part of promotional material for the Diversity Pool, it is hard to miss the mention of 'Separate Hostels'. It's been advertised in brochures, flyers and blog pieces. When Ping! Interviewed the diversity committee to learn more about the pool, we learnt that they're trying to reach families that may be hesitant to send their daughters to far off cities. The messaging of separate hostels makes sense in that context, to allay parental fears.

On the other hand, the recent parliament yearly progress report suggests that cellar area in Parijat Blocks A and B might be the first space in hostels to allow cross-entry. Some residents have confirmed that they were given a survey on this while still on campus. The parliament's statement is laced heavily with a "perhaps", and it is not entirely certain whether or not it shall come to be. It is almost certain that at the end of all discussions, the final actions that will be taken will be the prerogative of the Institute - and not the students. Which is not to say the Institute does not listen to students (despite often giving the appearance of such), but that students are on campus for four or five, maybe seven years at the best. Many of the cross-entry conversations in recent times have been spearheaded by individual students, who will eventually graduate. It remains to be seen how these conversations will carry on in the future. The Institute has explicitly shown its commitment to ensuring equal opportunity, options, and a more balanced intake of students, and if it is seen that cross-entry as a topic hurts that goal in the short term, it may very well be entirely abandoned without any pallbearers for the cause from the newer batches. ∎

TESLA PROTOCOL

- Ujwal Narayan

ICPC is one of the things that nobody in IIIT can escape hearing about. With computer programming and data structures being present right in the first year, everyone knows about the skills needed for a team to go to that level. IIIT has had an amazing history in its short time, with it having sent teams almost every year since 2012. This year too we are proud to announce that, IIIT has a team, "tesla_protocol" comprising Anurudh Peduri, UG5, Arjun P, UG 5 and Devansh Gautam, UG4 who will all be travelling to Moscow to represent India on the biggest platform there is.

I had the pleasure of talking with Anurudh who was kind of enough to spare a few moments to talk about his experience with ICPC this year. Given below is a few excerpts from our discussions.
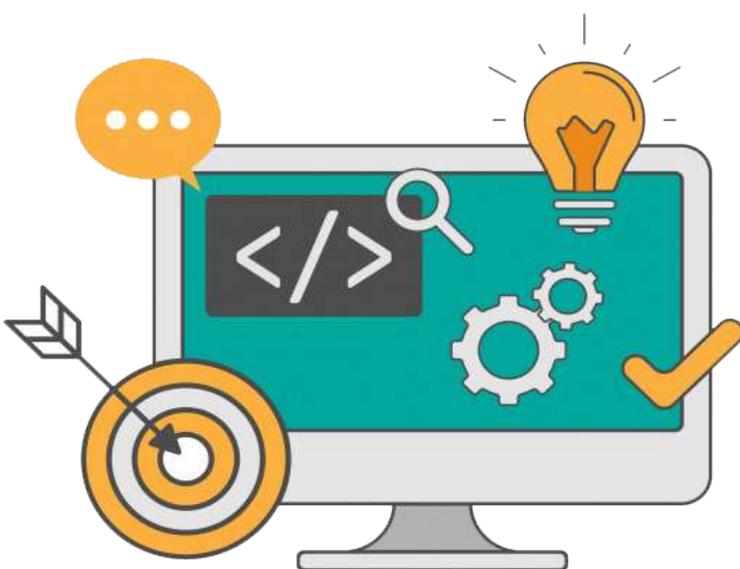
How was ICPC this year for you?

We were performing decently in the practice contests. Our aim was to come 1st so with respect to that we were not doing that great. Among the top teams, we usually have the most number of wrong submissions and hence a large number of penalties. Keeping all this in mind we knew we had to solve what everybody else solved plus an additional one to make up for our wrong submissions. We needed not just ability but also the speed to solve the hard problems before time ran out.

Our first regionals was at Amrita, and we messed up. It was the first contest we gave with all three of us in the same room. (Arjun during this time was interning at ETH, Zurich) Perhaps because of this, we were not as coordinated as we could have been. There were communication gaps, and we made some strategic errors especially when deciding which problem to solve. Even though the problems were easy, due to the contest pressure we were a little confused. Do we tackle problems as a team or do we let individual members play to their strengths and solve whatever problems they can? There are pros and cons to both and we did not get the right approach within that time frame. We finally ended up 6th.

Kanpur was our second regionals. Wrong submissions haunted us again. At some point we just started panic submitting, coming to use the Online Judge as a debugging tool. Each submission identified a new mistake for us to fix. And all these penalties started to add up. Other than this, we were also slightly out of touch for a few concepts and that made it difficult to quickly solve some medium level problems.

All this paints a bleak picture, but the only thing we could do was practice. Arjun and I were both in our 5th year, and it was our last attempt at ICPC. It was a do or die situation. We reevaluated our approach. We took a good hard look at the

COMPETITIVE PROGRAMMING
//Where Computer Geeks become Gladiators

mistakes we made and focussed on correcting those errors. I'd say we were much more prepared especially mentally for this.

But as they say, no plan survives first contact with the enemy and so was the case here. The contest was very ad-hoc. It boiled down to a speed contest and penalties made or broke teams. In the first 1.5 hours of the contest, we could only solve 3 problems. To give context, the leading team at this point had solved 6 problems. I was looking at the list of problems totally dejected. It was a do or die situation for us and we were almost dead. (If this was an anime, cue melancholy music) Devansh, however, picked a problem with no solves yet and said it was easy. And before too long he had solved it. This gave us motivation and we solved another easy problem. Devansh again picked up an unsolved problem (This later turned out to be the hardest solved problem in the contest with only 4 teams solving it). While it was not as easy to slay as the earlier one, he coded and debugged it quickly and had solved it as well. Before the rank list froze (In contests such as these, the leaderboard does not change in the last hour and thus teams cannot see how many problems the other teams have solved during that time or their final rank) we had solved 7 problems, ranking 10th. We were outside the qualification zone for sure at this juncture but the motivation was sky high. Since we had solved the hard problems first, we had relatively easy ones left

so we knew that if we focus, we'd solve them and qualify. We solved one more 20 minutes after the freeze. With around 3 minutes remaining before the contest ended, we submitted our last solution, and thus solved 9 problems in total. Due to all our penalties, we knew we'd come last amongst the teams that solved 9 problems, so even if the cut off was at 9 problems we might come out on the wrong end of the qualification zone. The centre had poor internet connection and thus it wasn't possible for us to figure out how the other teams did easily. It was still not a done deal and thus we were on the edge. The rank list finally came out and we were 7th. Only the top 6 can qualify. But three of the teams who were ranked above us had already qualified for the World Finals earlier through the regionals. In the end, it seemed the team that solved 8 problems with the lowest penalty qualified as well, so we "comfortably" made it through.

So yeah, we qualified, so it was good I guess!

How did tesla_protocol prepare for ICPC? Was it very different from last year? Any particular insights?

I think we were more serious about ICPC this year when compared to our earlier attempts. Like last year (tesla_protocol

consisted of Anurudh, Arjun and Rishabh Arora), for example, we did not give enough team contests together and it showed. We found it difficult to coordinate and work together during the contests. This year even though we may be separated by thousands of kilometres (Arjun was in ETH, Zurich at the time) we made sure to give team contests regularly. Being a 5th year, I was not as burdened by the academic load as before and could devote more time to the things that I wanted to do. While we were serious, we were not as serious as we should be. But by Mid September, however, we realized we actually had a pretty good shot at making it to the world finals.

I believe it's essential to have a good rapport with your teammates. ICPC is after all a team contest. Communication becomes key here. It's important to know your strengths and weaknesses but also your teammates' strengths and weaknesses so you can accurately judge who is best suited to solve a problem. In ICPC especially there is just one computer, so each minute you spend on it becomes precious. You also will have large gaps between your usage as your teammates will also need to use it to code. So you can't always immediately make changes and debug. Details also may slip your mind and not even we are exempt. For example, in the last problem for West Asia, we messed up with the array indexing. I had written half the code at the beginning of the contest, and at the end when we came back to it we thought the indexing was another way. I found the bug right after the contest ended, but alas, it was too late.

Working simultaneously is important here. Trust also plays a role as while you trust your teammates to solve a problem, you must also trust them to be open about the difficulties they are facing if they cannot solve it. Being able to come forward and explain why I'm stuck on a problem without fearing judgement from my teammates is crucial.

We were also lucky with each of us being able to cover each other's weaknesses. Most topics had a good overlap with the members who knew it well and there were no gaps in the team. While a certain

minimum skill is needed and expected at this level, topic coverage and team dynamics is also important to consider when making a team. While finding such a set of teammates is hard, it's not always necessary as solving all the problems is not necessary to qualify for ICPC. Teams can work around this if they have a good dynamic.

You've emphasised team practice quite a bit. How different is it from individual practices?

With a team, you can solve much harder problems. The whole is greater than the sum of its parts.

We can discuss with each other, and bounce ideas off of each other. Discussion brings new perspectives and it becomes easier to find mistakes and debug. Questions that need expertise in different topics can be split into individual topics where each member solves the topic he's good at. So while individually we could not have solved the complex problem, as a team we could.

Other than this, the environment is different and team members can offer emotional support and encouragement as well. Teammates are able to motivate each other and help each other to a certain extent. Team spirit is underrated. It is possible that a team where all of the team members are stronger individually than most teams can not make it to world finals because of the lack of synergy. The stakes are high, and tempers rise. It's not uncommon for arguments to happen which of course not just wastes time but also distracts.

All said and done, it essentially boils down to whether the teammates can work with each other and understand each other. If yes, then with enough practice you should be as well equipped in this area as anybody else.

Is being in IIIT advantageous? Or do the academic requirements prove to be a burden?

IIIT has a very good programming culture. ICPC has a lot of interest and we have plenty of good role models to look up to.

The Programming Club deserves a lot of credit for making sure that the culture is not just carried forward but actively growing. A lot of meets are conducted with a variety of topics at a variety

of levels right from beginner to advanced being taught and discussed. The peer-based learning approach we use here, with the students themselves teaching each other and helping each other helps to develop your skills to greater heights. These days, the Programming Club also has challenges for regular contests between members which help to keep one's skills sharp and keep you in touch with competitive programming even if you are not actively pursuing it.

Monsoon semester usually faces a decline in practice as it is right after the summer which essentially breaks the flow. With deadlines every week, a team practice of 5 hours is a commitment that is hard to do week in week out. The college faculty are also not super supportive and it was the peer-based

learning that helped us develop our skills beyond the basic data structures.

When you have peers and friends to discuss and solve with, you don't feel as if you are doing something that is work. Friends can also motivate you to be better than what you are. Major props and thanks to the Programming Club and its coordinators for working so hard with little to no benefits just so that the culture continues.

There are a lot of platforms like Codeforces and Codechef out there. Which one do you prefer to practice with? Are they any major differences other than the UI between those sites?

The problem styles and topic coverage vary across different platforms. AtCoder is usually math-oriented, and has problems with more elegant solutions, Codeforces strikes a balance between implementation level and the topics covered. TopCoder has high complexity solutions and has a wide

variety of combinatorics problems. Codechef has a variety of hard and unusual problems. So all the different platforms have their own distinct styles and make you think in different ways to get the answer. ICPC, on the other hand, gives you all of these in one contest. Codeforces rating is somewhat misleading as you can achieve red with a narrow breadth of topics.

What is important is not the platform, but the quality of problems and so it's important to do good problems irrespective of the platform. We usually gave team contests in the Codeforces gym and practised with the various ICPC regionals from around the world as well. At the later stages we also practised with OpenCup which had problems which were approximately of a similar difficulty to what we would expect in the world finals.

The leaderboard is a staple of competitive programming. Does it provide any tangible benefits other than knowing who's on top? Teams are liable to become nervous or conversely too confident by looking at their positions on the leaderboard, so won't it be better if they do not look at it at all?

I think the leaderboard is extremely useful. It helps you identify what problems is everybody solving and can serve as an approximation of the difficulty. Not just this, but by looking at the leaderboard you can see if a particular problem is implementation heavy or if it has a clever trick which you can exploit. For example, if a problem is solved by teams across the leaderboard, more often than not there's a pattern which has to be observed and used to solve it. So it's probably better for you to move on to another problem rather than placing a bet on a problem whose solution may or may not strike you.

On competitive coding and beyond…

Competitive Programming has many benefits. You acquire a solid grasp on your language of choice and will be intimately familiar with all its functionalities and intricacies. As the

solutions need to be fast and efficient to be judged right, you will also be pretty good with respect to algorithms and data structures.

But this is just the tip of the iceberg. Competitive coding makes you think and apply your skills to solve a novel problem. So it doesn't just train you in coding, but also in the art of problem-solving. It's a mental exercise and you need to use whatever you know to come up with a solution, and as there's a time limit you need to be able to do this fast.

I think of it as a sport. Each problem solved to me is roughly equivalent to a goal scored by a striker. I do competitor programming because I like it and I think that's an important distinction to make. Many do CP due to the advantages it offers be it during internships or jobs, and it's perfectly fine to do so. Many of them, in fact, start out because of the above reasons but end up continuing because they like CP and not due to

any external factors. One shouldn't feel forced to do CP just because everyone does it or to make more money. Give it a try outside of OJ a couple of times and if it's not your cup of tea don't feel pressured to continue. As I said, it's just like any other sport. Just because you're a poor competing coder does not mean you're a poor coder or a researcher. Everybody has their own interests and this just happens to be mine.

So what I'd like to say is don't let OJ be your only experience with regards to CP. Try it a couple of times outside of academic pressure and who knows you may just grow to like it!

On behalf of all of us here at IIIT, we'd like to extend our congratulations and would like to wish tesla_protocol the best in all their future endeavours including but not limited to the World finals! ∎
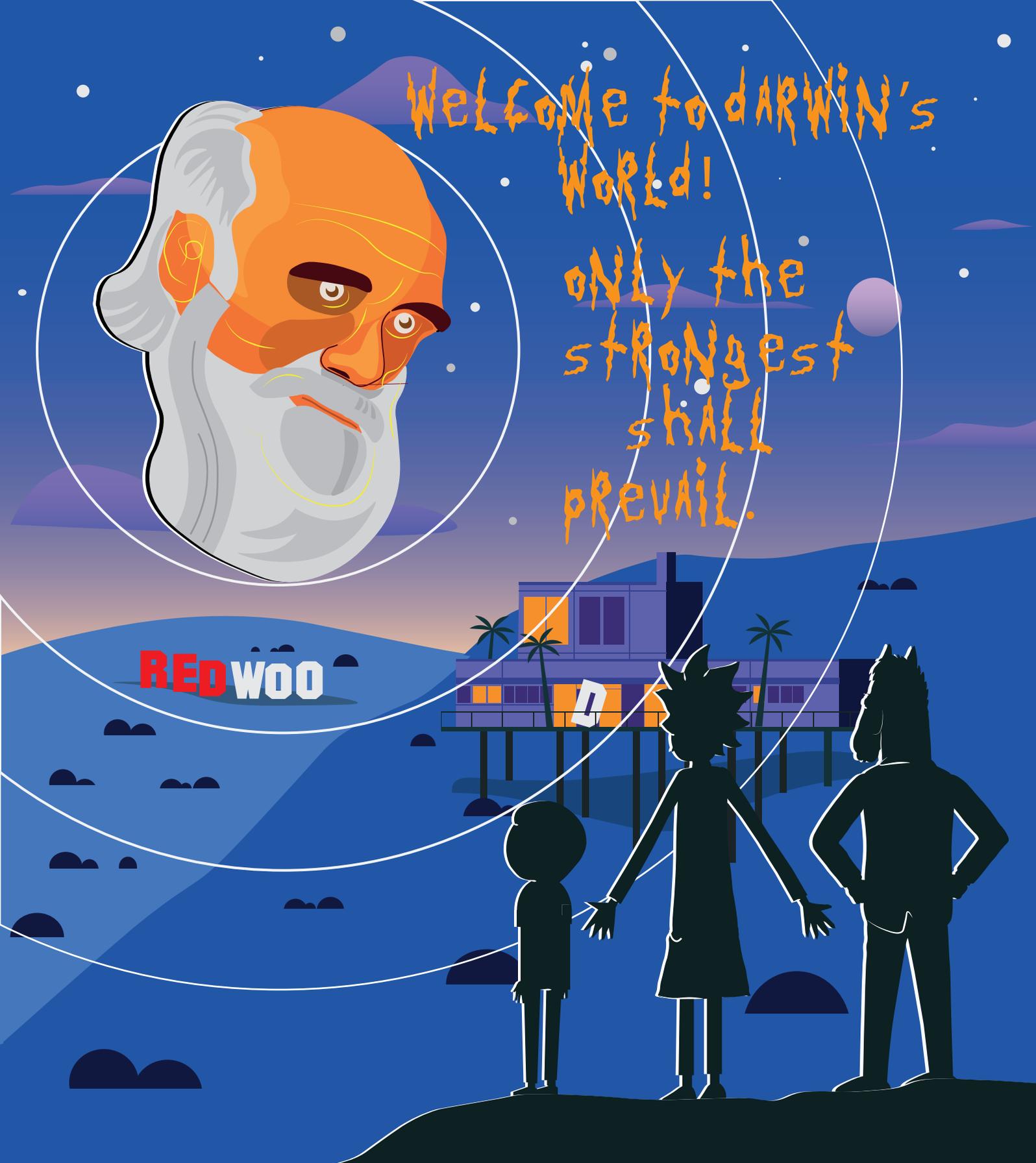
Welcome to darwin's world!

Only the strongest shall prevail.

REDWOO

The OJ Conundrum

''Get GREENfty? What the hell is that?''
''It's our world's best effort, that's what''

Written by Shashwat Goel
Data Visualisations by Jyoti Sunkara

void Introduction ( )

```
{
```

1
2 Among the most uniquely implemented courses in
3 IIIT-H's undergraduate curriculum are Computer
Programming and Data Structures and Algorithms. While
4 they are standard Computer Science offerings, they have
5 a special place in our hearts. What distinguishes them is
6 the unmatched focus on solving problems and the flavour
7 of competitive programming (hence-forth referred to as
8 CP[1]).
9
10 Before I begin, here goes a disclosure. I write this
11 as someone who took admission from the Olympiad
12
13
14
15

mode, or more colloquially, an 'IOI'[2]. I have been doing Competitive Programming off-and-on since Grade 9. It has been what introduced me to and developed my interest in CS.

No, I'm not going to fanboy over OJ. I won't brainwash you into thinking your experience is totally your responsibility. Much rather, the opposite. The goal of this article is to compile long-standing issues with OJ, analyzing what causes them and proposing how they can be fixed.

```
}
```

the iiit c-pro/dsa course
## why did I study these?

```cpp
sort (reasons.begin(), reasons.end(), byPriorityDesc());
```

16 /*
17 1. DSA questions have a significant (disproportionate, in India) weightage in Job Interviews, and will probably
18 decide your package.
19 2. Internships…
20 3. ICPC…
21 .
22 .
23 .
24 1e9+6. CF Rating...
25 1e9+7. The concepts taught are fundamental to, and the foundations of, all aspects of computing.
26
27 */

[1] https://codeforces.com/blog/entry/67253 - Links without context.

[2] Please try not to call all Informatics Olympiad admits 'IOI's. Fun fact: only a few of us actually made it to the Indian Team that goes for IOI, and for some of us who didn't it only brings back sad memories :P
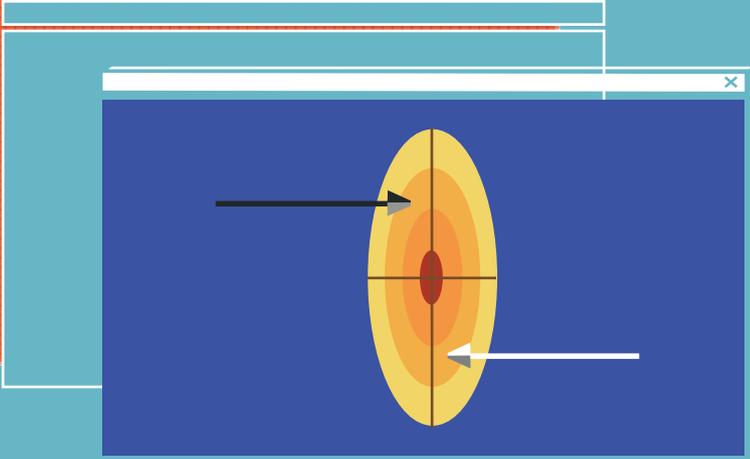
Course
Goals

So IIIT chose to not beat around the bush. Most of the course-weightage is allocated to coding-contest-ish assignments and exams. While lectures are mostly theoretical, students spend the majority of their time on labs, assignments, and CP. In fact, IIIT keeps out the analysis part for a future course, Algorithms and Analysis in II-I.

The course goals include motivating the writing of modular code (OOP), introducing some nuances of C/C++ (IO buffers, directives etc.), good coding practices, improving problem-solving and computational-thinking abilities etc. The syllabus covered is enough to crack the DSA part of most job interviews. Students mostly end up needing additional prep at that time though (no, our cache can't hold this stuff for 3+ years).

My main focus will mainly be the assignments and exams, popularly combined into the single term - "OJ".

Assignments

THE
ONLINE JUDGE
PLATFORM

Imagine going through messy codes of 300 mostly-clueless students on a regular basis. Doesn't work right? An Online Judge automates this process. Outputs of submitted code are evaluated on pre-decided test inputs using a validation script that checks for correctness and run-time.

+ Advantages

1. Students can make multiple submissions for every question, with full feedback on correctness. This is unlike other assignments where you can't fix your mistakes.

2. It simulates coding contests, online platforms etc.

3. A hands-on approach. Instead of writing code on paper, student's get to go through the complete process of algorithm design, testing and debugging.

4. It saves a lot of time and effort for TAs.
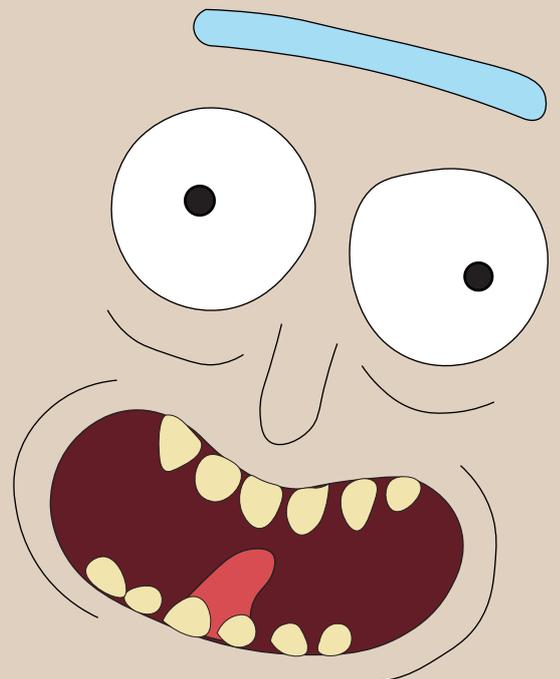
1.

No feedback on coding practices, approach, possibilities of making the code easier etc.

2.

Binary grading. A small bug could mean an absolute 0. This is somewhat mitigated by advantage 1 above. It can further be fixed with the introduction of subtasks. A more general issue, however, is an inherent lack of subjectivity in the grading. In most practical scenarios, codes and algorithms are often not "right", or "wrong". Rather, they lie on a spectrum based on efficiency, accuracy and readability.

3.

No way to check if the student actually understands the code submitted and how much help was taken.

Frankly, the disadvantages are also shared by assignments in other courses to an extent. This article is indeed not about the use of an Online Judge. Instead, I shall focus on the content of the assignments, it's scope, and how an OJ with problems is not enough to achieve the previously stated course goals.

CONTENT

The OJ problems, both for assignments and exams, are largely picked by Teaching Assistants (TAs). There is little oversight from professors. Most of the TAs chosen every year actively take part in CP contests both online and ICPC, or have done so in the past. The importance of this dynamic cannot be overstated! It gives birth to the excessive influence of CP problems in assignments. The disconnect of people who regularly do CP and other students is highlighted throughout the survey graphs we present. It clearly shows how people who only do CP being TAs is a harmful phenomenon.
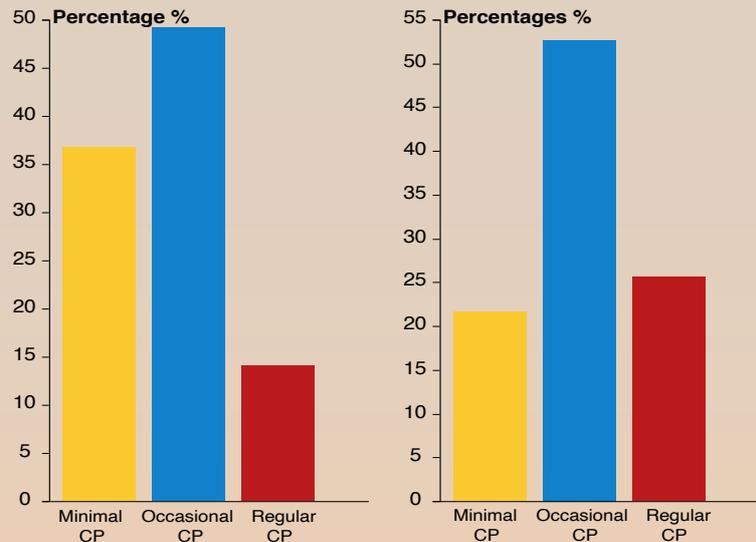

Fig. Types of people based on programming experience: Results form 2 surveys have been used for this article. One was conducted after CPro and received 114 responses (Graph 1). The other was conducted after DSA and received 74 responses (Graph 2). In the respondents, a small increase in the amount of CP done is seen from CPro to DSA. The lower number of responses in DSA could be because after CPro, more students responded hoping survey feedback will be adopted for DSA. The results were made available informally to TAs and UG1 members of the Student Parliament, but no further action was noticed.

Contrary to popular belief, CP forms a small part of IIITians intellectual interests, especially after the first year. Most students indulge in the sport only due to the prevalence of similar questions in the hiring process. Even hiring usually involves classic questions that can be

C-PRO DSA
TAs

CODECHEF
ATCODER
LEETCODE
SPOJ

ICPC

CODEFORCES
GREARTH
TOPCODER
KSTART

CP IN BLOOD? GOOD TO GO.
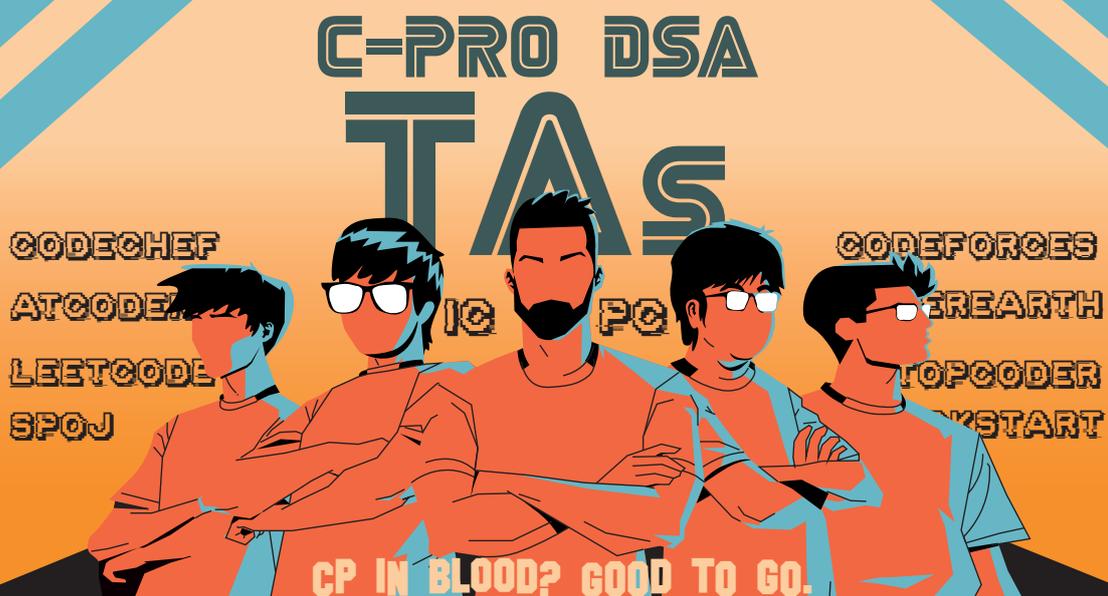
found on dedicated interviewing platforms like LeetCode. Most future coursework and research (unless related to algorithms) too only require a basic understanding of algorithmic concepts. This is unlike typical CP problems that come up in OJ assignments which often involve nuanced tricks and mathematical observations. Rarely is the depth and style of problem-solving in OJ of practical use to most students.
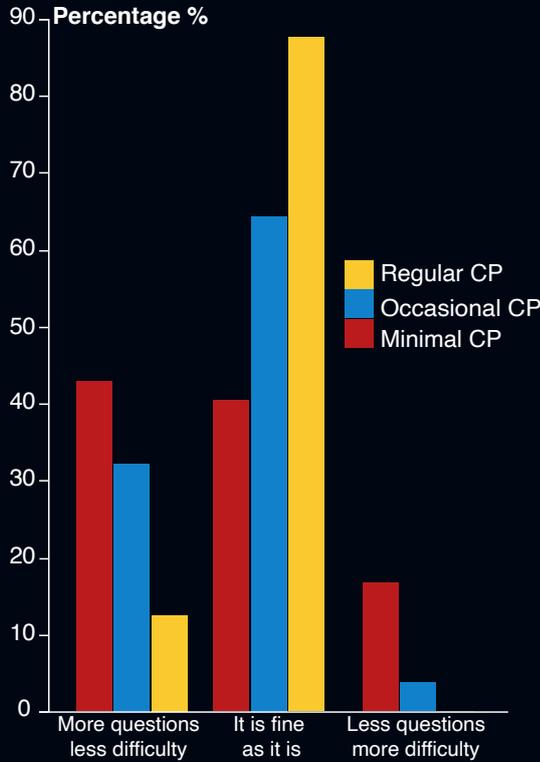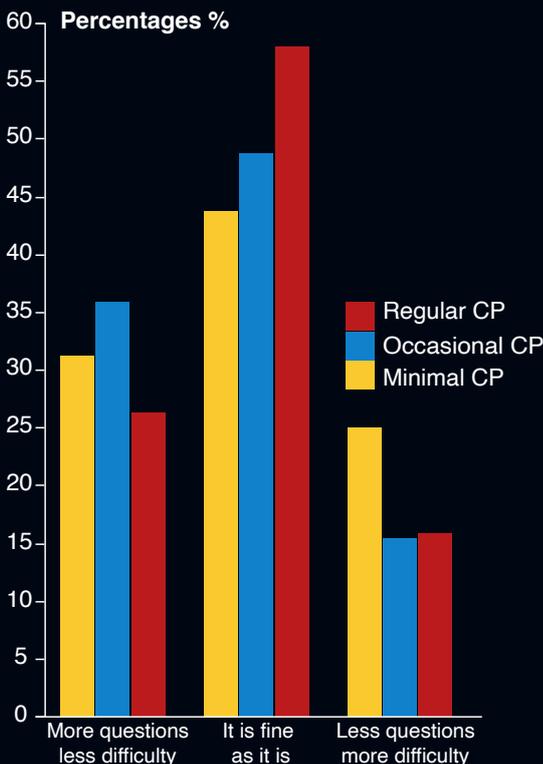

Fig. C-PRO

Fig. DSA

Fig. Number of Questions and Difficulty: In CPro (first graph), Most students who do CP actively think the questions/difficulty ratio is fine already. However, a significant portion of those with less experience think there should be more questions with less difficulty. Notice the change in DSA (second graph), with an increased number of students agreeing difficulty should be lower.

Here's a simpler, more relatable way to understand the problem with CP being the focus of these courses:
Go back in time a few years, and imagine being taught for RMO (Regional Mathematics Olympiad) to ace JEE[3] Maths(my sincere apology to DASA students). In fact, imagine your teacher hardly focusing on JEE questions, instead, hoping you'll ace them if you practice for RMO anyway. I think you'd agree you'd be furious at the teacher for the rest of your life. You'd pass the blame for successfully pulling down your JEE rank, which led to you joining IIIT… I digress.

It is true that lectures mostly consist of theory and tutorials/labs help with the basics. Regardless, OJ dominates the focus, and what students take-away from the course. The practical reality is that theory taught is often just ignored by students. At least until the written exams, which carry lesser weightage anyway. Since UG1 students devote a majority of their "acads-time" to OJ, it is imperative to get it right!

DIFFICULTY:

A BAPTISM BY FIRE

At this point, it might feel I'm arguing for a complete pause on drawing questions from CP platforms. Rather, as someone who loves it as a hobby, I think CP has great potential to be used as a tool for teaching. Some OJ problems do tend to be of great educational value. These clarify some very elegant details and applications of the algorithm in question. However, one must not forget (as TAs often do) that its role should be of a tool, and becoming good at CP is not the goal.
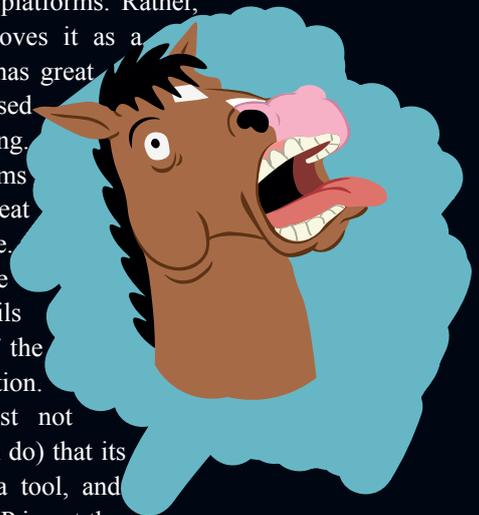
[3] Ofcourse, JEE too is party to the practice of forcing students to learn way beyond what they mostly need but the point is that's not the right way and this practice has to stop somewhere.

WHY HARD-CORE CP?!

My opposition is to problems that are hard applications of niche tricks (like re-rooting Tree DP) that are unlikely to surface outside the fantasy world of CP. These are neither taught to students before-hand nor easy to come up with independently, even for seasoned competitive programmers.

It is good that problems are not directly from what is taught, but in such cases, it is also important to ask: *"Will everyone really ever need such thinking in their life?!"* Some Examples:

1. A problem that required the IOI 2016 Aliens DP Trick. An in-depth understanding of the solution requires knowledge of Lagrange Multipliers, a concept in Multivariable Calculus. At IOI 2016, only 1 participant solved the problem for a full 100 points. 40+ participants got stuck at 60 points, which could be achieved without the use of this trick. For those thinking "well, that's a high-school contest", top IOI participants tend to be Orange/Red on Codeforces, a feat held usually by less than 10 IIIT-H students, none during UG1.

2. Multiple OJ problems can be traced back to Div1D and harder problems on Codeforces and or major international contests (IOI, ICPC). The irony is that even at the end of the course, most students are not comfortable with solving Div2D problems.

3. This is especially prominent in DSA. The first code one writes (unless they do CP) on a non-trivial topic like Tries can require significant modification from the vanilla data structure taught in lectures. Not to mention, a tricky observation-based solution precedes the coding.
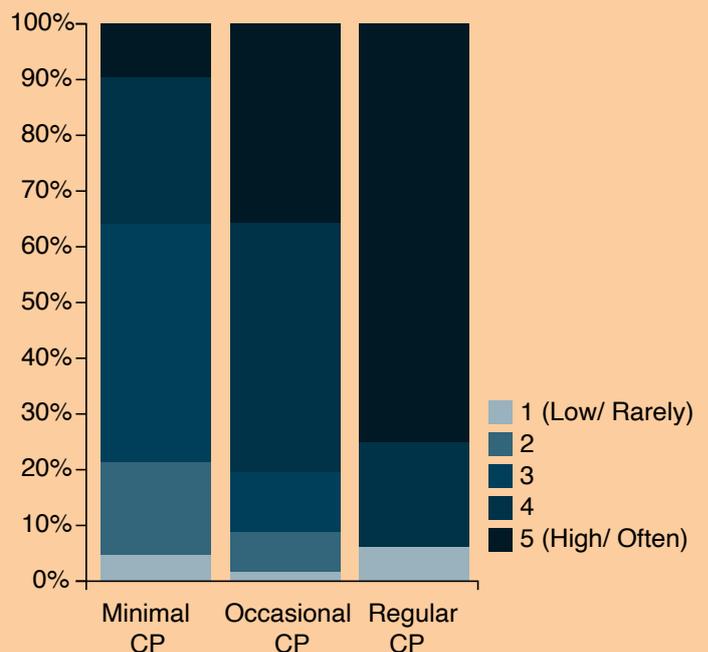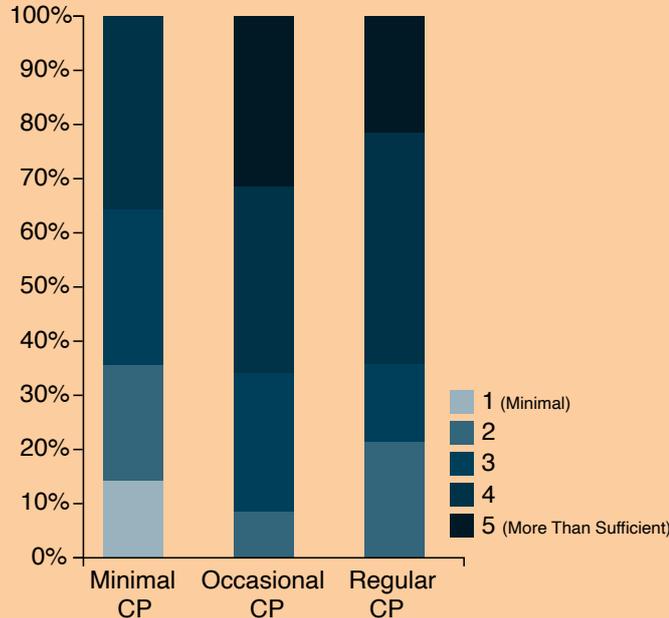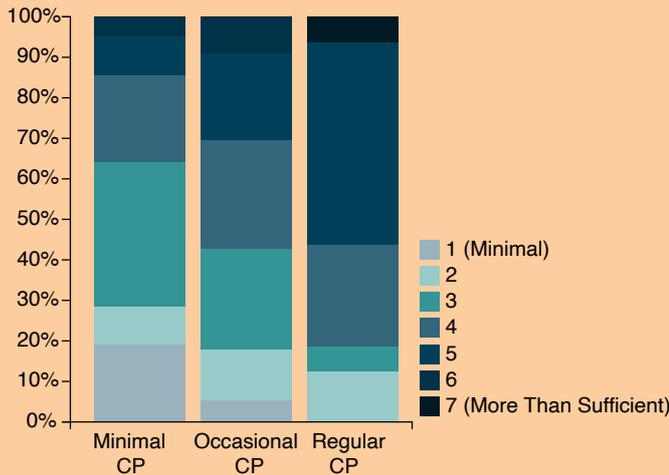
Fig. To what extent are prerequisites for problems covered in Lab/Lectures? : In the CPro survey (first graph), the 'average' mark was 4/7, and in DSA 3/5 (second graph). The percentage of people who found prerequisite coverage less than sufficient, halves from 80+% to 40% in CPro and 60+% to 30% in DSA. Notably, active competitive programmers (future TAs) mostly don't take labs and tutorials seriously, and since they know the concepts, don't realize how prerequisites are often not covered.
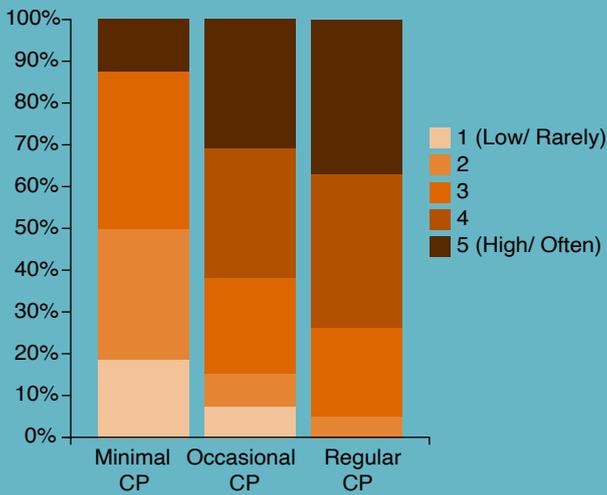
Fig. Given the logic, what percentage of questions students implement independently: *If students don't do CP, they find it hard to even implement more than half the problems even after being told the logic. The numbers naturally get worse across categories in DSA (nearly 40% who even do CP occasionally can't implement half the problems).*

A lot of ex-TAs, alumni etc. (as seen on Confessions@ IIIT) think that questions being this tough promotes learning. The explanation is that if one would really work hard, they would probably do well anyway.

Justification for OJ difficulty is often made citing "Army Training". Once again: The army *needs* that training to survive, but IIIT students have little use for advanced CP tricks! Perhaps IIIT's timely response to the COVID crisis comes due to its experience with exponential learning curves...

Basically, the argument isn't against difficult questions. Students are often welcome to challenging tasks provided completing them is beneficial. Their efforts should instead be conserved for and channelized towards academics that are more applicable to research, jobs, or more broadly, the real-world.

```
int alternatePerspectives()
```

Moreover, it is important to highlight that the course is taken not just by CS students, but also ECE and ECD. The irrelevance to them grows as questions get more specific to CP. On similar lines, an interesting perspective is that of Lateral Entry students. They don't have to go through the OJ grind[4], yet they don't face any disadvantages in coursework and hiring. This indicates much of the scope of OJ is unnecessary.

Fig. CP Practiced on other platforms: *There is a lot to unpack here, and these graph say the most about the adverse outcomes of OJ. The first graph is after CPro, while the second is after DSA. There is a clear drop in the percentage of people who find problem solving and programming interesting, mainly due to DSA notably among those who do CP occasionally, it fell from 85% to 50%. This is not seen among those who do CP regularly. In DSA, Clearly the majority doesn't find OJ problems interesting, and neither does OJ motivate them to self-learn. On both these metrics, the feedback after CPro was still decent. More than half of even those who don't do CP regularly do find the theory interesting, in-fact, almost as much as those who do CP regularly. However, a significantly high number of students (After DSA, 60+% of those who do minimal CP, and 30% who do it occasionally) say OJ has demotivated them from problem-solving and algorithms! This is really sad considering these students are committed to a career in CS in the near future.*

It is natural to lose interest in something given little time to fully understand and appreciate concepts. The difficulty curve discourages one not just from algorithms, but being first-year students, from CS as a whole. It may not be rational, but students do tend to feel scared, stressed and disheartened.

[4] Programming is covered as part of a course during the summer to bring them up to speed.

The difficulty level often leaves students with little options. One's first demossing experience soon sows the seed for rampant plagiarism for the rest of their courses at IIIT.

plagiarize. Lab exams end up providing an essential eye-opener to course administrators and students alike. What's shocking is that students have been caught using unfair means even in Lab-exams this semester!
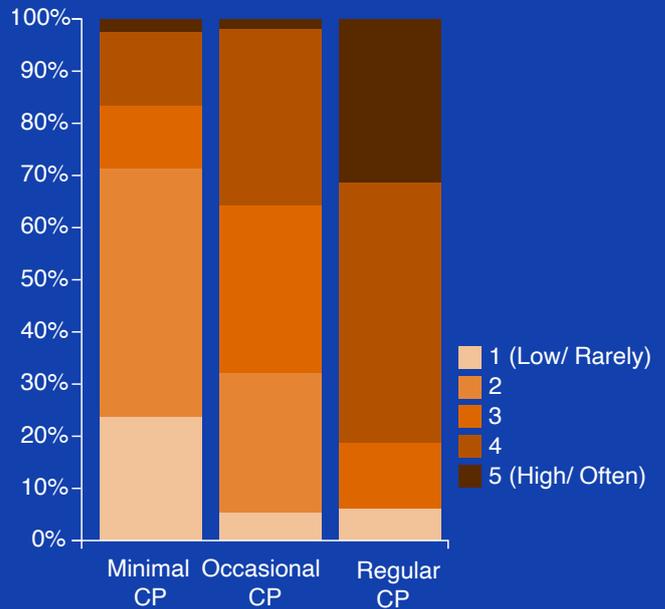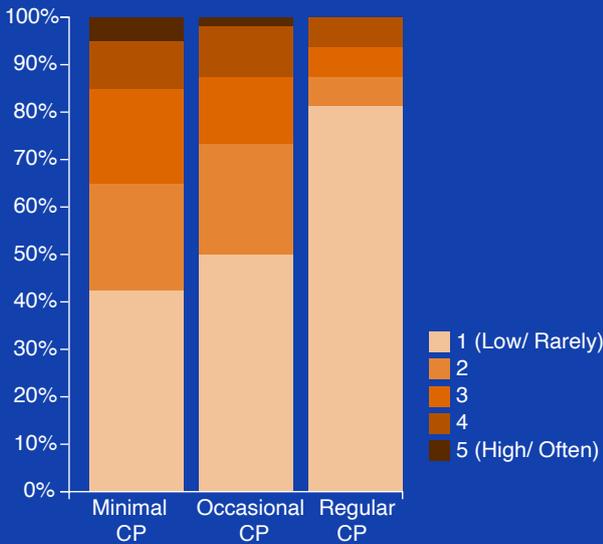
Fig. How often have students been tempted to plagiarize intelligently? : More than half the students who don't take part in CP contests actively feel pushed towards plagiarizing. Note that this survey was collected after CPro before grades came out, and respondent E-mail IDs were collected, which probably means students were not open enough despite our assurance that the data will be de-identified. The numbers are definitely much worse.

THE ACADEMIC HONOR CODE

How excessive collaboration leads to harder problems

It goes without saying that the student body is equally responsible for some problems. Professor oversight in assignments is often limited to tracking the final leaderboard. Professors seem to be aware of the problems with plagiarism, but perhaps not the extent. A disproportionately large number of accepted submissions are made on the last day. Many of these are demossed, or even coded by someone else. Most of these cases cannot be caught, as the art of beating MOSS is one that many IIIT students master to perfection. Seeing high scores, TAs keep making the problems tougher and professors don't realize what's happening. This pushes an even larger number of students to have no choice except to
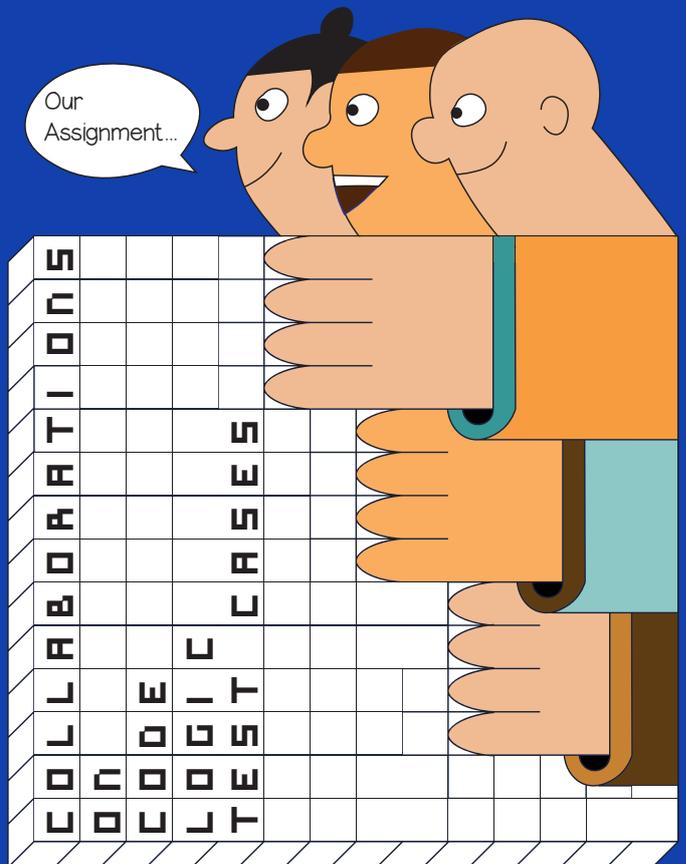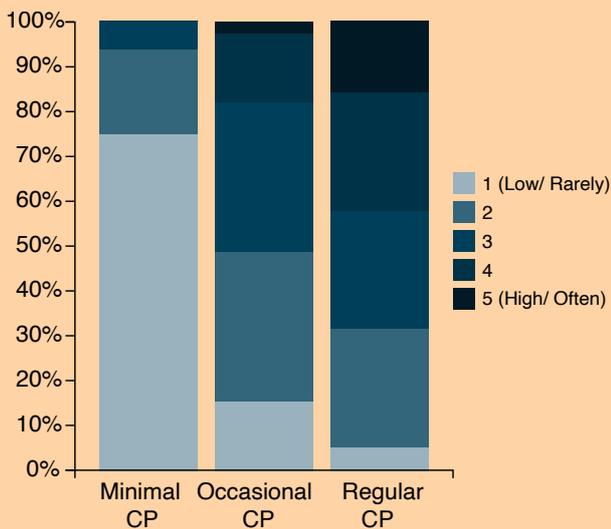
Fig. How well is a student able to solve without any hints?: Most students end up needing hints to solve problems even in CPro (Graph 1).The problem compounds significantly in DSA (Graph 2) with as many as 75% students who are not interested in CP saying they can rarely solve the problems without hints. Among those who do CP occasionally, almost 50% require hints for most problems. Even amongst active CPers, less than 40% can solve half the problems without hints. Given that these 'hints' are peer-based, it's not easy to quantify whether they are just observations related to the problem, entire solutions or even coding/ debugging help.
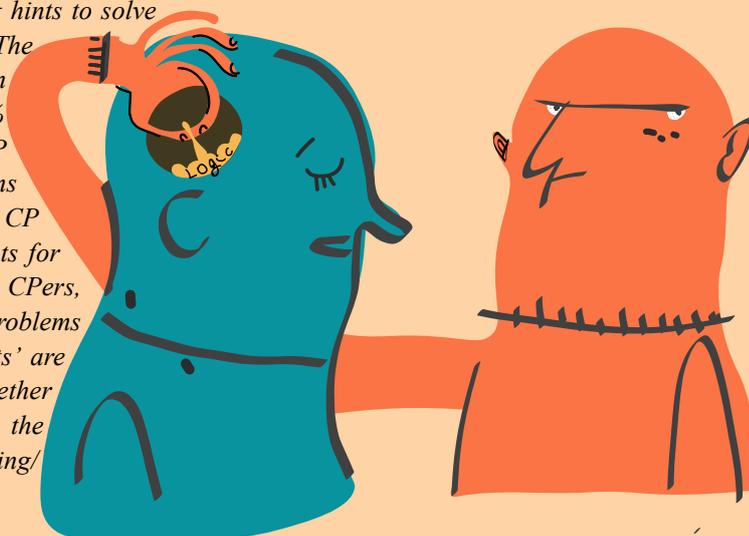
It is not like IIIT inherits students who always plagiarized. In-fact, it only selects students who have done well in high-school. Back in JEE coaching, such students looked down upon plagiarism themselves. They had an acute realization of how it's futile in the long run. People actually fought for extra assignment sheets for practice. So why does IIIT (and in general Indian colleges) have an excessive collaboration problem?

The main reasons I believe are a lack of motivation, passion and trust in the curriculum. CPro and DSA are a little different in this issue than most other IIIT courses though. Students are fully aware that the skills will help them later in interviews. They want to be good at this. They trust their TAs to get things right, considering active CPers in the community often do well in getting offers. So what goes wrong?

Universities across the world tackle plagiarism by instilling an almost religious belief in the Academic Honor Code amongst students, an idea alien to most at IIIT. Specifically in CPro/DSA, the short-term incentives to plagiarize are high with low penalties if caught. Many

students get a Demossing 101 from seniors (in exchange for DLF trips, Felicity work and the likes) or through public resources as soon as they enter IIIT.

WHY DEMOSS?

A typical OJ question can take anywhere between 1-4 hours of dedicated effort. This is assuming you don't get stuck at some point (which you do, multiple times). Given that being at IIIT you probably have another deadline the same week, it's attractive to cut down significant parts of the above process through peer assistance. When left with too little time for this on the last day, demossing is the final fallback.
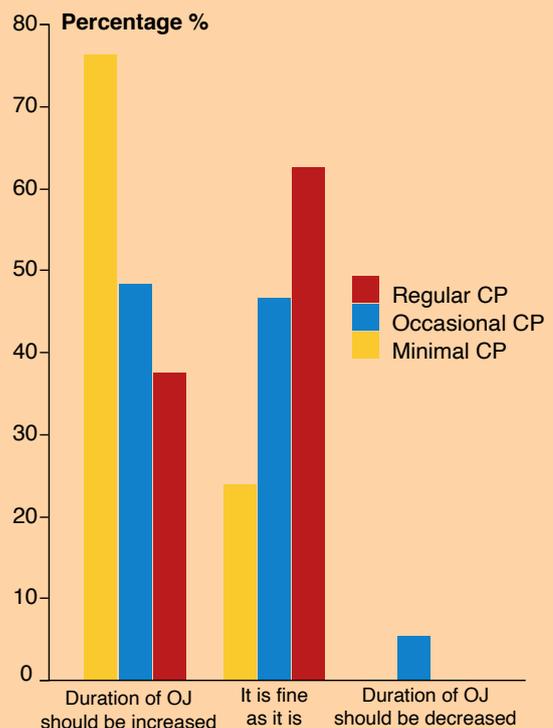
Fig. Duration of Online Judge:A majority of the students, especially those who do less CP believe that the duration of OJ should be increased.

It's also hard to catch up once you've been left behind. Due to the overlap in concepts, many questions become unsolvable if you haven't understood the previous assignment's solutions thoroughly.

The leaderboard further fuels anxiety as leaving a few questions puts you below the median. You are tempted to think: what's the worst that can happen if you deMOSS? It's hard to be careless enough to somehow fail a demoss attempt. Even then, TA generosity will probably let you off with points only lost in that question alone. Points you wouldn't get if you didn't demoss anyway. No escalations, no record beyond memories to reminiscence on, no institutional action whatsoever!
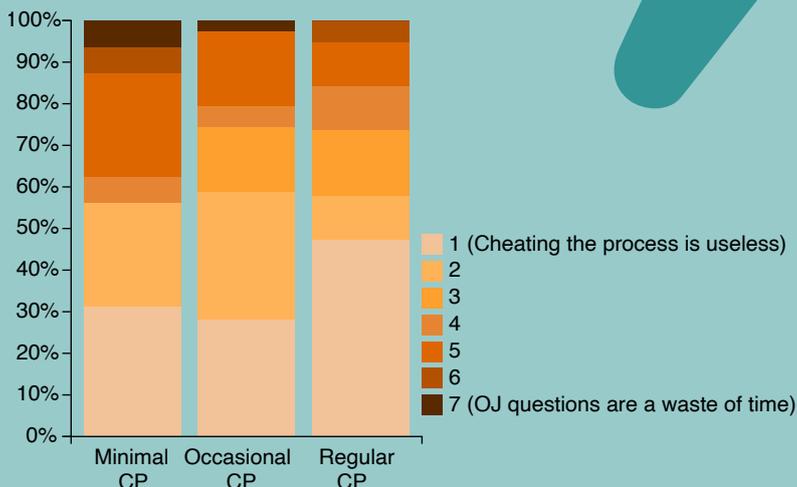
Fig. To what extend do students think that demossing OJ saves actual time for learning: Ideally, each bar in this graph should be completely dark purple. Across categories, over 40% of students believe that demossing does save time to some extent (3/7 or more). Again the disparity between students who already do CP actively and those who do it lesser is evident.

NEED: BEING ROBUST TO PLAGIARISM

Keeping all this in mind, to their credit, the TAs did enforce a best-of-30 (out of 35) policy for DSA this semester. Essentially, solving more than 30 questions would mean no extra weightage. Alas, students were not informed of this till before the very last OJ. By then most had already dabbled in the dark arts to stay afloat.

Letting them know would've prevented stress and allowed them to plan which questions to leave. The justification given was 'But then you wouldn't try the hard questions', to which my simple retort is that it's not like most did it themselves anyway. Forcing students to plagiarise is unfortunately seen as a fair trade-off for motivating them to attempt a very hard problem.
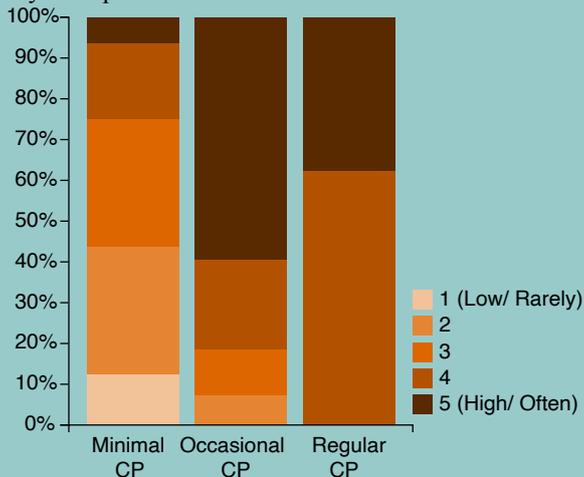
Fig. Percentage of OJ Questions students are positive of solving from start to finish without any assistance today: This graph indicates that people aren't really confident about their ability to solve all of the OJ problems (including both CPro, DSA), after the end of both courses. The much higher confidence of the middle-category, people who solve problems only occasionally seems unintuitive. Or, could it be the Dunning Kruger effect?

Of course, if all students could stick to their abilities/ interests and leave questions, relative grading would ensure they get the grade they deserve. This is easier said than done though. It must be realized that this forms an "unstable equilibrium." If a small group of students over-step this line, it feels unfair to the rest how their honesty will be rewarded with lower grades. I agree this is not a rational ideology, and the focus really needs to be on learning. However, it is important to stop hoping students are saints and analyze where they are coming from.

Leaderboard
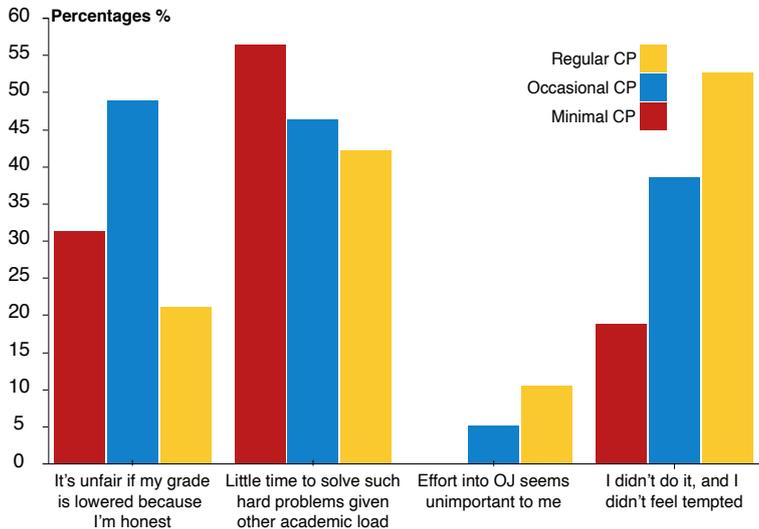
Fig. Why are people motivated towards excessive collaboration/demossing: *This survey was taken after DSA. It is interesting to see that almost 80% of those who do minimal CP, 60% of those who do it occasionally, and 45% of even those who do it regularly refrained from saying they haven't partaken in excessive collaboration. This survey was anonymous, and hence it seems to better represent the actual picture than the CPro one (also, DSA was much harder). The reasons agree with our observations too. Academic load (almost 50% agree) and seeing others do it (~35%) are the main factors that lead to it. Very few people (and among them, mainly who already do CP regularly) feel that putting effort into OJ seems unimportant, which I think would be a more popular option to justify plagiarism in other courses.*
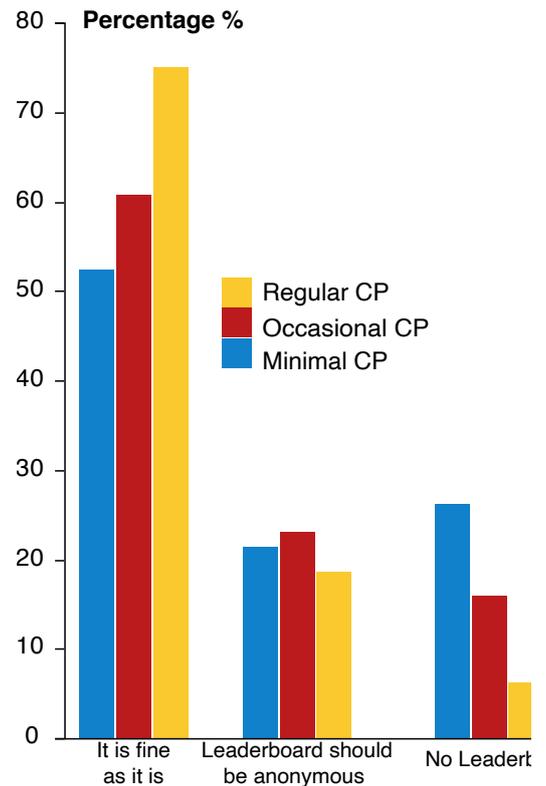
Fig. Review of the public leaderboard with scores:Ab *half the students who do minimal CP, and 40% of* *who do it moderately agree that the leaderboard sh* *either be anonymous or that it shouldn't exist. Those* *actively do CP and thus are higher on the leaderb* *ofcourse crave the satisfaction it provides!*

Education, not evaluation!

One of the fundamental issues that perhaps motivate both the steep curve and plagiarism in OJ is that it's an evaluation metric with significant weightage (20-30%). This often clashes with the learning aspect of the course.
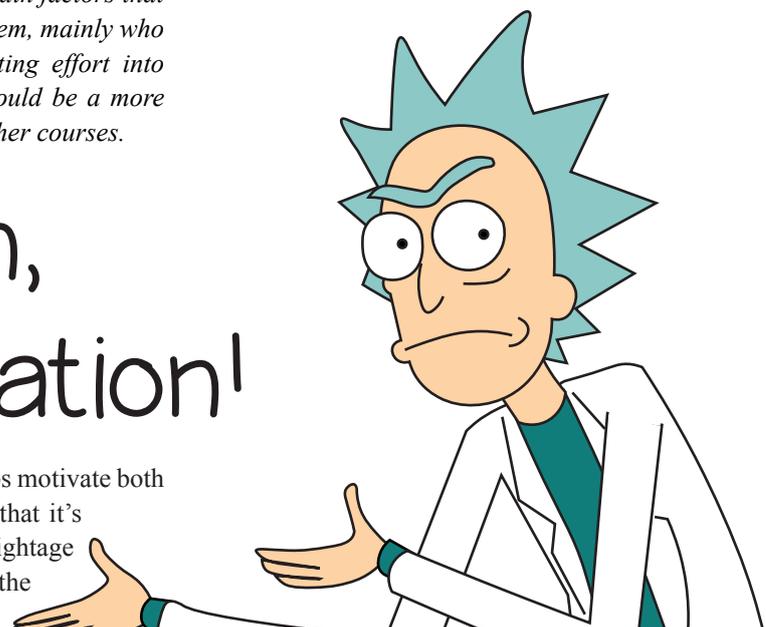
Throughout OJ, a live leaderboard is available to students. The only way it benefits the students in my opinion is that they now know who to ask for solutions. The leaderboard gives birth to unhealthy competition, adding yet another meaningless number that students can use to define one's self-worth.

While it is irrational to hold yourself up to students with 2+ years of prior experience, it is not uncommon for students to feel further discouraged by seeing Informatics olympiad admits (or those who prepared for it) solve questions with ease. Moreover, students who do CP actively interact more frequently with TAs outside academic settings. I myself have cribbed about finding OJ boring in casual conversation with TAs. This leads to a nudge towards making problems interesting for us but unreasonably hard for others. People with in-depth prior knowledge of the course end up causing problems to others unintentionally. A possible fix could be extending policies like RSAO or offering an elective to such students. This would also help mitigate the unhealthy status bestowed upon olympiad admits in UG1.

TA and Jerry

In UG1 CP-circles, multiple conversations arise around OJ and students often express their wish to be TAs in the future. This is accompanied with remarks on how "the opportunity to make life tough for juniors" seems fun. Sadly, these tendencies are harboured deeper than just humour. An indicator of this has been certain E-mails from TAs sent out to UG2k19 during DSA. For upper-classmen who haven't witnessed these gems, I attach them here for your enlightenment. The E-mails are not an isolated incident. After performing poorly in the CPro mid-sem lab exam, students were reprimanded for 6+ hours in labs. Note that this was for many students their first experience with a timed contest.

While the patience TAs show in teaching and doubt-clearing is impressive on many occasions, such actions only reflect hubris. They reinforce the image of assignments and grades being a cat and mouse game, though I do agree it's students who overstep the line first.

Misplaced priorities are demonstrated when little is done to convey the learning aspect of OJ. Some TAs are open to discussing doubts on a one-to-one basis or in tutorials. But, once an OJ is over, no feedback is provided to students formally. Even solutions to the problems aren't released on Moodle/Mail. Fed up, this semester UG2k19 students themselves initiated a forum for post-assignment resources, though it understandably couldn't continue for long. Indeed, it is assumed that once the deadline is past and the evaluation needs are met, OJ has served its purpose. This ideology naturally pervades down to students. Students start seeing OJ as plainly an opportunity to score marks, by hook or by crook.

AUTHOR'S TAKE - SOME POSSIBLE SOLUTIONS

Here are some things that I feel should be implemented, or at least tried.
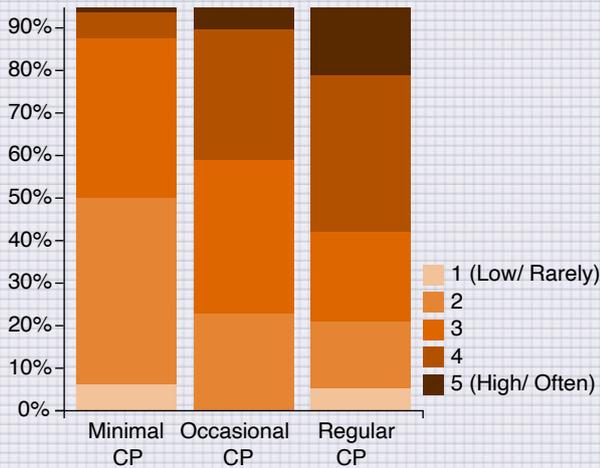
Fig. To what extend did OJ help give students conceptual clarity about the theory taught in lectures: *Almost 90% of students who do minimal CP, and 60% of those who do it occasionally believe that the conceptual clarity conveyed by OJ questions is average or below. The number is as high as 40% even amongst students who actively do CP and thus have a strong grasp on the concepts anyway.*

It is even possible, I believe, for TAs to go through codes of harder questions to provide concise feedback on coding practices and methodology to students. Just like 'Evals' held for assignments in other courses, a student can present his codes to TAs in 5-10 minutes. One might argue that TAs don't have time to provide feedback, but then they do spend entire days looking into plagiarism cases.

All this said, there's one thing OJ does teach us - finding bugs is pointless if you can't fix them.

1. Releasing official editorials with hints, solutions, well-written codes and proofs should be a bare minimum requirement. Additionally, the problems should be kept open for submissions later.
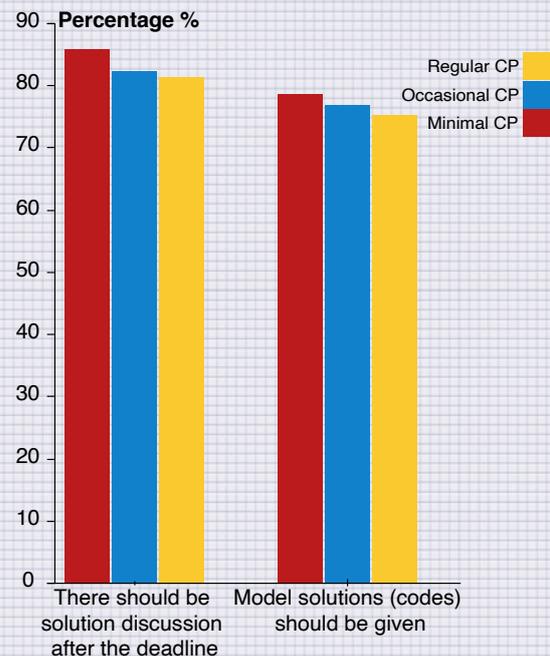
Fig. Opinion on what should be done after an Online Judge assessment: *Almost all students agree there is a need for official model solutions and discussions.*

2. The emphasis of OJ should be learning, not testing. Perhaps the weightage of OJ should be reduced, in favour of holding more lab assessments. Increasing assessments is unpopular with students (ref: the quiz system).

Now let us talk about some solutions Morty!

However, it is probably better for CPro/DSA, where back-log cannot be recovered in one night of study. Problem solving and coding can only be improved incrementally with practice. With OJ questions of high enough quality, students will still be incentivized to do them seriously anyway.

This also splits the weightage across assessments. This is necessary as it is natural to panic and mess up a lab-exam, especially for students who don't take part in online contests regularly (which again, should not be a necessity).

3. Not relying solely on OJ. Problem-solving is a key element, but not the only course goal. Students can be given code handouts to improve upon, complete, modify and

Well .. That's a lot of points lol..

debug as exercises. These can introduce much longer, harder codes than what the scope of OJ allows. It will also continuously expose them to good coding practices, and they will naturally adopt them. With a similar aim, students should also be introduced to IDE's with static analyzers (that give constant feedback on coding practices) and not be forced to use Vim. This will also help students learn specific caveats of the language. In general, inspiration can be drawn from diverse teaching practices seen across other courses in IIIT. One-OJ-fits-all is an unrealistic expectation.

4. There should be some group projects. There have been talks of getting different students to write codes integrated into a single data structure program. This adds a collaborative aspect while motivating the need for coding practices first-hand. "Challenge problems", which require developing heuristics that maximize an objective function should also be

used. These often come up in the real-world. Their non-binary nature incentivizes students to try different approaches and optimizations. Moreover, students cannot use the common 'there are only so many ways you can solve this problem' trope when caught for plagiarism. There is a lot of room for creativity!

5. At least some problems should have some real-world connection students can appreciate

afterwards. Meaningful insights from the problem should be communicated too. This will make setters think deeply about what is actually useful for students. Intriguing CP problems are not necessarily ones every CS (even less so Electronics) student gains something from. It might be better to lean towards common (even if less 'beautiful') problems that one is more likely to encounter later in some form.

6. Strictly cracking down on plagiarism from CPro OJ-1 itself. A bad example is set initially

when students are let-off, which makes plagiarism seem a viable shortcut later. Sure, fear is not an ideal solution. But self-awareness is a larger and different issue altogether.

Moreover, insights such as Temporal MOSS can be incorporated. The idea is to make students commit their progress regularly to detect unrealistic jumps in progress. Students putting in effort throughout the assignment period are less likely to feel the need to plagiarize too. Other creative options could include point-decays (as seen at Codeforces) for last day submissions.

7. Efforts should be made towards formalizing the hint process. This could be through increased subtasks as in Olympiad problems. Other options could include a system that gives automated hints or the wrong test-case after 'x' number of wrong submissions. This could be supplemented with a submission delay (slow-mode) of a few minutes to prevent exploitation if necessary. IIIT students are more than capable of making such a separate portal for hints linked to the OJ leaderboard for tracking.
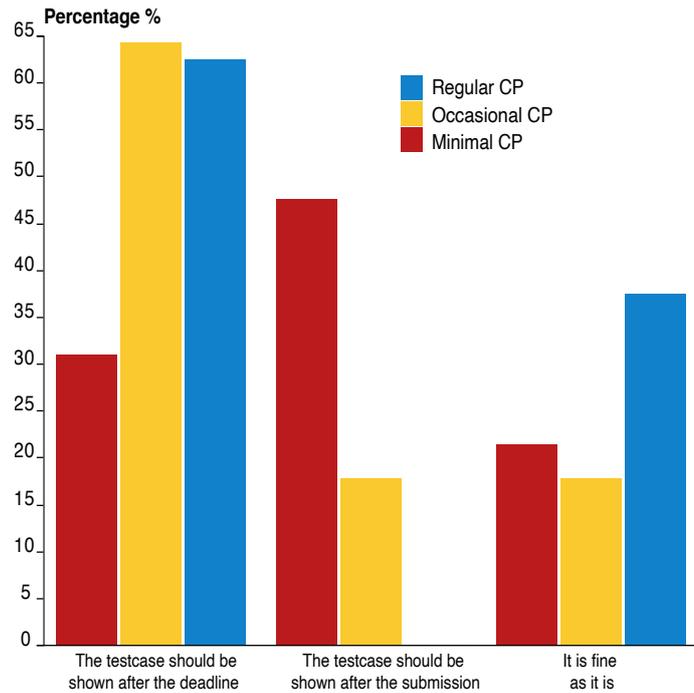
Fig. The hiding of testcases done to improve debugging skills

8. A more diverse (in terms of intellectual interests) set of teaching assistants should be selected. It is true that competitive programmers tend to be more experienced in concepts taught in CPro/DSA. But there are compelling arguments as to why not all TAs should be the most skilled. This helps better optimize the outcomes of the general student body, instead of those who are already inclined towards CP.

Based on my sources, this is easier said than done as applicants for TAship are mainly students interested in CP. However, it is worth questioning if this is so because of the status quo. If an effort is made to reallocate the emphasis on CP, it is possible more students would volunteer. There should obviously be more professor oversight to ensure course goals are met.

9. The problem statements should be less confusing, fantastical stories and more readable. The problems should be tested rigorously. It is frustrating to waste a day on debugging only to find out the test-cases themselves are wrong.

Fig. For or against the current binary system
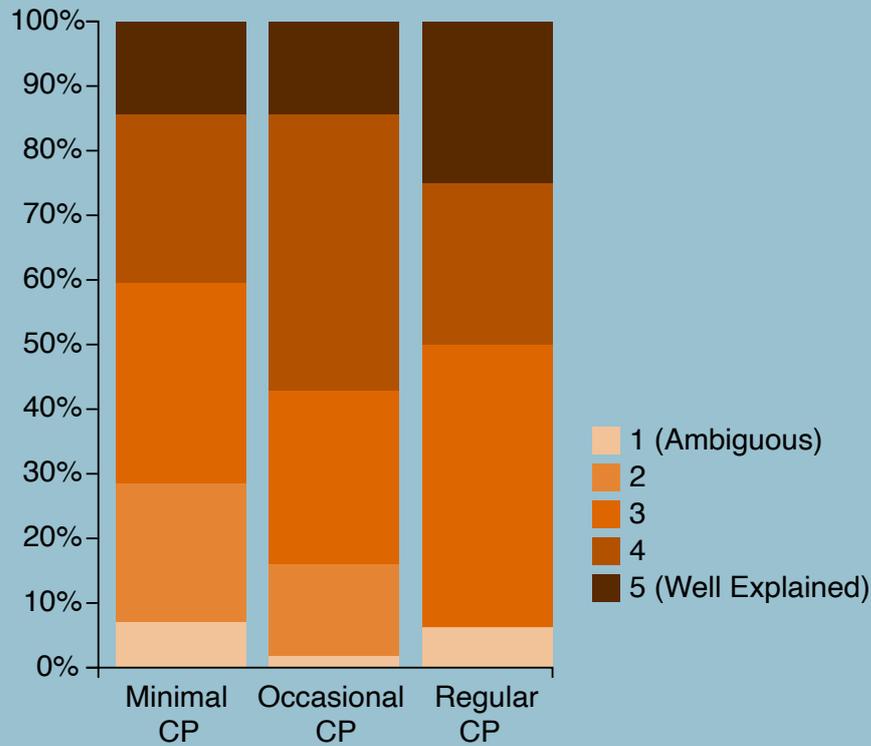
Fig. Clarity of Problem Statements: Around 50% students overall agree that the clarity of problems statements is average (3/5) or below.

10. I realize that the stated reforms require time and effort to enact. However, based on my discussions with past TAs, there are many redundancies in course administration. A lot of re-inventing the wheel happens every year, with practical problems being realized and fixed in the middle of the course. These insights are rarely documented for ready availability to future TAs. Not having to worry about problems tackled before would allow TAs more time to experiment with and incorporate changes.

CONCLUSION

I personally find using CP as a tool to introduce CS a refreshing avenue worth exploring. I am sure IIIT students are all-in to support novel pedagogical ideas like these. In-fact, I feel IIIT's unique programming offerings can be made more widely available. With some refinement, our CPro and DSA course designs hold the potential to be excellent alternate computational problem-solving courses for students (perhaps in high school) to try independently (think OCW). However, the remaining gaps need to first be carefully considered and bridged.

Moreover, I realize this article ends up painting TAs in a bad light. I would like to emphasize again the pains they go through to clear the dumbest of our doubts, handhold us through our inability to follow the clearest of instructions, and haggle with us over issues that clearly start on our side. It is immensely difficult to think about complex, subjective issues like pedagogy during hectic semesters. But with the world on the cusp of a revolution in education, perhaps this is the perfect opportunity to ruminate about the efficacy of learning at IIIT. UG2k20 will join us after a harrowing experience with delayed admissions, hopefully OJ won't make their transition to college as frustrating as ours.

CATS

- Jaidev Shriram
Pranav Tadimeti

regular joe would spit on the endsem week as the single most dreadful part of a semester, but spring 2020 had different plans. Following great buzz around the movie 'Cats', five of us at IIIT decided to watch the cinematic version of the Broadway classic. By then, it'd become a pop culture monstrosity - cat lovers and furries alike derided the movie, questioning how this "unholy picture" came to be. Nothing was more shocking than the cast that would lead one to expect the exact opposite - Oscar winners, knighted individuals, Grammy-winning pop stars, and the prima ballerina of the Royal Academy of Ballet. To top it off, the movie was directed by acclaimed Oscar-winning director Tom Hooper (The King's Speech, Les Miserables). Strangely, this roster wasn't enough to convince theatres in Hyderabad or elsewhere to screen the movie for long.

Fun fact: It's estimated that Cats lost around $100 million in revenue when accounting for production and marketing budgets.

But, as theatres worldwide stopped their screenings, a lone cinema in Hyderabad prepared for its near-final show - unprepared for the hysterics that the five of us would cause. The couple that sat in front of us was likely even more unprepared to have five loud students interrupt an otherwise private cinema screening. Though we suspect they had little to no interest in the movie.

Aside: INOX GVK One also had the best nachos we've had in any theatre in Hyderabad. Great cheese too. A tad bit pricey though. 10/10 should try it.

We spent forty minutes questioning if this was worth the bucks during the ride to the theatre. This review was born out of the discussions in the forty minutes it took us to return to IIIT - albeit as different and new individuals. There are few experiences in life that are forgettable, there are some that demand conversation, but none in our experience necessitated a deeper questioning about why certain choices were made along with a sparked curiosity about the character's resemblances to 'furries'.

Few movies get straight to the point. Cats does. It opens with a grand song about 'Jellicle cats' and their varied activities. They sing. They dance. They do magic. "Jellicles can and Jellicles do. Jellicles Do and Jellicles Can" That's a lyric from the song.

Imagine them to be a different species of cats. Throughout the movie, they sing and dance with a personality that is conveniently described by their names - the magician cat, the theatre, the mystery cat (If only we could figure out our life's purpose as easily). These cats compete for the ultimate prize - a ticket to be reborn.

The idea of starting over in a new life is an ancient fantasy. To be cleansed of one's sins, and be given a chance to begin anew with a newfound innocence and sense of wonder in the world. Cats are the quintessential 'rebirthers'. And the movie is no exception. In its quest to tread the emotional tension of life's worth, the movie gave us…. Jason Derulo sucking toes and slurping milk sensually with an underage kitten. It is not a pleasant sight. This was meant to be a Christmas movie that competed with Star wars. Strangely, this theme of a good premise and creepy acting make up the bulk of the movie. It's also precisely why this is the best movie we've watched in 2020.

While Inception nested its plots intricately, changing the meaning of time, Cats goes a step further and disregards its importance altogether. Truly. Shuffle a few songs here and there, and it's unlikely to make a dent in the larger story. The character's title songs already have a rambling style to them, but the rambling plot truly shows a commitment to artistic style unlike any other. In its 110 minute runtime, we see a slew of cats pop in and out, singing songs about themselves as they make a case to win the prize. The contest to be reborn is judged by an old cat that only shows up after half the contestants have performed. Worst judge ever. Wait, this plot feels familiar...

The first thought that comes to mind when watching Cats (apart from questioning life, certain death, and everything in tbetween) is how eerily similar it is to America's Got Talent. There's a contest with a grand prize, with random contestants from all over the country hoping to get their hands on it. The characters also fit some of the stereotypical contestant profiles a little too well.

AMERI-C TAL

JENNYANYDOTS

VICTORIA
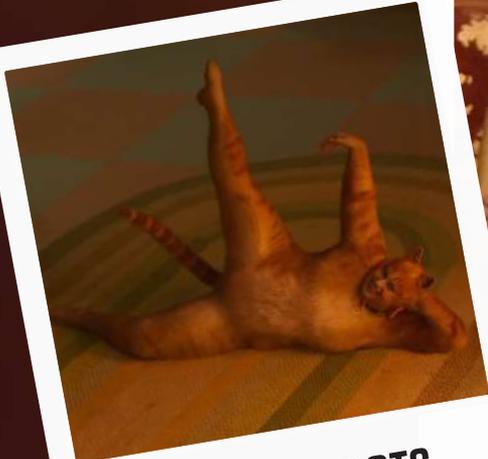
MR. MISTOFFELEES

She fits into a lot of different act archetypes. The costume changing act, the clumsy dancing act, the teaching pets to dance act, and also the terrible singing act. While she may not be very talented, the act is very entertaining and so is kept on the show to get more views.

She's the host and fits right into the profile. Young, quirky, white. Yes, we just said that. She dances around once in a while, listens earnestly, and plays along well. The one question we all wonder though - why do we have to be invested in her? As the primary character, we see the plot through her lens.

Anyone who's seen a competition show knows that the most frequent contestant (after the singers and the dancers) is the magician. Mistoffelees fits perfectly into this archetype. His tricks are pretty lame at first, but he might be the only contestant who actually improves during the show. Truth be told, his trick for the finale (spoiler alert: teleporting Old Deuteronomy back) was actually pretty amazing.

When the day's hustle and bustle is done
Then the Gumbie Cat's work is but hardly begun
As she finds that the mice will not ever keep quiet

Visions of dazzling rooms I'll never get let into

And the memories were lost long ago
But at least you have beautiful ghosts

When he was curled up by the fire
And he's sometimes been heard by the fire
When he was about on the roof
At least they all heard that somebody purred

ATS GOT ENT

OLD DEUTERONOMY
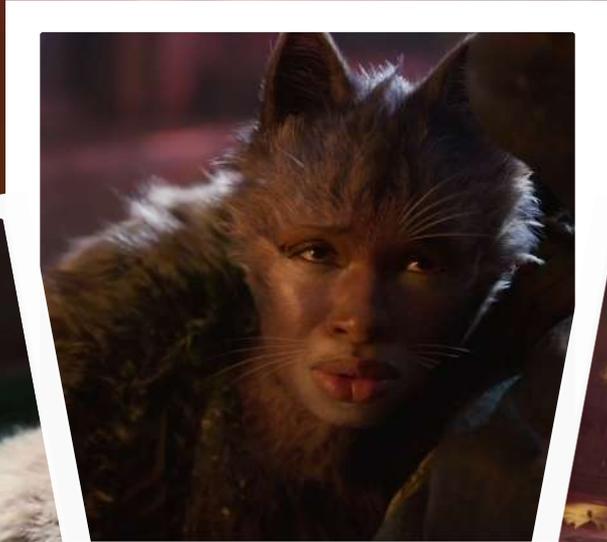
GRIZABELLA

MACAVITY & BOMBULARINA

She's the judge of the show, so we're calling her Simon Cowell. The similarities end there, as she's not nearly as critical as he is. She's also not obsessed with creating 5 member bands constantly. One direction, Fifth Harmony, Little Mix, Simon Cowell has a serious problem. That's for another time.

Old Deuteronomy's buried nine wives
And more -- I am tempted to say
ninety-nine
And his numerous progeny prospers
and thrives
And the village is proud of him in his
decline

Now, we have everyone's favourite contestant. The one with the super sad backstory (she works 5 jobs, her 20 year old kid's kid is pregnant), and usually ends up winning. In the story, she left the tribe to be a glamour cat (We don't really know what that means either). When she returns as an old shell of what she once was in her prime, she's ostracized and is sent away. Spoiler alert, that's what gets her the win on Ameri-cats Got Talent. She does have a pretty good song though.

Daylight
I must wait for the sunrise
I must think of a new life
And I mustn't give in
When the dawn comes
Tonight will be a memory too
And a new day will begin

They're the snarky couple who think they deserve to win right from the start. You know, the ones who are super confident and downright rude to the judges in the audition. Despite their unpleasant personalities, their talent is undeniable and actually stand a chance at winning. That being said, they'll probably spend the prize money on a honeymoon trip.

Macavity's a mystery cat: He's called
the Hidden Paw
For he's a master criminal who can
defy the law
He's the bafflement of Scotland Yard,
the Flying Squad's despair
And when you reach the scene of crime
Macavity's not there!

WHERE DID IT ALL GO WRONG?

Clearly, the movie has a lot of flaws (the reviews are hilarious).

> "I truly believe our divided nation can be healed and brought together as one by "Cats" - the musical, the movie, the disaster. In other news, my eyes are burning. Oh God, my eyes"

> "Nine may not be enough lives for some of the stars to live down their involvement in this poorly conceived and executed adaptation of Andrew Lloyd Webber's hit musical."

> "I felt the light inside me slowly fading."

Identifying what these flaws are may help provide those unfortunate souls who decided to watch the movie some amount of closure.

For starters, there wasn't exactly a main character in the story. Although stories don't always need a protagonist, there's always some party which we can root for. In the case of Cats, the only thing we rooted for was the credits to roll up. Some believe that Victoria was the protagonist, but that doesn't make too much sense since there's zero character development (except maybe she moves more weirdly towards the end). Grizabella did have some sort of redemption, we couldn't really relate with her since she was barely shown, and the reason she was banished wasn't too relatable either. If there was a character we could cheer for, maybe the movie would be slightly less unbearable.

Pixar, the maker of heartwarming timeless movies, follows one rule - "A good story makes up for all flaws". Sadly, the story of Cats was possibly the biggest flaw of all. The story revolves around a competition to be the "Jellicle Choice", and the winner goes to the Heaviside Layer, which is a metaphor for rebirth. While this is sort of a plot, the movie mainly consists of character introductions (literally 80% of the movie). There is a villain in the story - Macavity - portrayed by Idris Elba. He has one of the most swoon-worthy voices but gets around 10 lines. That's it. Strangely, he is the character we would root for because he constantly kidnaps the contestants, stopping them mid-song. Maybe Macavity was aware of how dreadful the characters were.

We've saved the biggest flaw for the last, the CGI. To be completely honest, the movie would've looked better before the special effects were added.

What we were promised

What we got

Fun fact: "Cats - A Look Inside" was released a day before the actual trailer and it didn't have any CGI at all.

To be fair, the bar was high. Cats in real life are adorable. Not that this is something to be debated on, but we offer evidence below:

What we were met with was a halfway transition of a character from Animorphs.
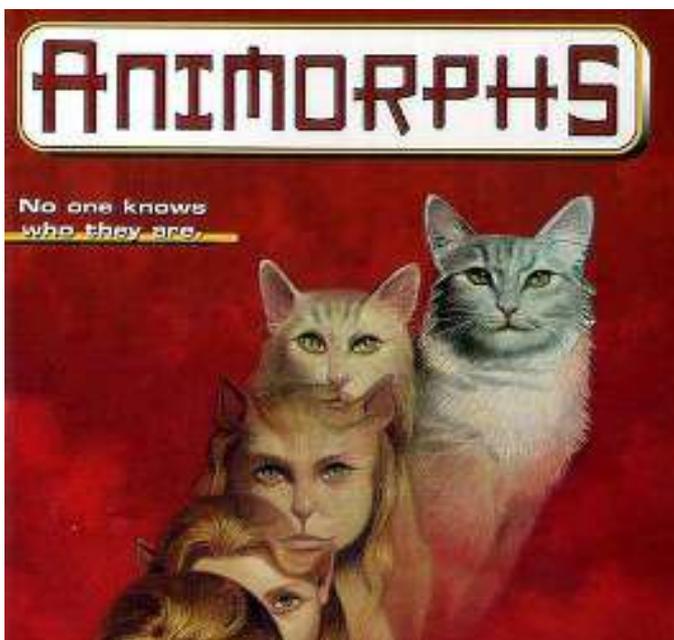
The characters looked too human to be cats but too cat-like to be humans. The cats had fingers. FINGERS. **FINGERS!**
Rule #1 of adorable cats is paws for the win. Some wore high heels! Further, The movement of the tails was downright unnerving, not to mention their ears. The most horrifying part wasn't the cat CGI though, it was the cockroaches and mice that appeared in the first 15 minutes or so. Innocent children do not belong on tiny mice heads. A good CGI might've been able to maybe slightly make up for the awful story, but all it did was leave us horrified and disgusted.

Perhaps we've been a bit too harsh.
Nope. Not at all.

The authors couldn't settle on this.

Unpleasantries aside, there are some light and beautiful moments as well. Ignoring the poor plot, some actors do put up a great performance. Jennifer Hudson and Taylor Swift have some great moments despite showing up mainly at the end. Their vocals and comparably enjoyable songs play well into the characters they represent. What's better than the songs from the Broadway show strangely is the sole original song written for the movie - Beautiful Ghosts. The chilling musicalesque original has great lyrics and vocals. It is one of the few songs in the movie that actually enhance the story.

Fun fact: Taylor Swift appears in more promotional material for the movie than the movie itself. Considering that she wrote the song that earned the movie its only nominations, there should have been more TS.

Calling this movie bad would be 'incomplete'. Bad things do have value, and in hindsight, no movie had better value for money than Cats. In the end, personal taste is likely going to determine one's reaction to the movie. What that means is people who appreciate terrible CGI, barely any story writing and cringe humour will enjoy this movie. At the end of the day, humour is humour even if you end up laughing at the person cracking the joke. The movie deserves terrible ratings but it is also the most enjoyable group comedy you can watch. While this movie may not be the best choice if you're looking for an objectively good movie, it's still an enjoyable experience when seen with friends, and also a journey into a serious existential crisis. Have fun!

Like the writers of Cats, the authors of this article don't know how to end well either sooooo, byeeeee! ∎

The scroll reads:

1. No parking on school buildings

2. No running school grounds including the ... field

School Rules: The Cruels and the Cools

- Pahulpreet Singh

Besides running on the P.T. ground and walking to classes daily, a major portion of the routine of an average IIITian involves crying about running on the P.T. ground and walking to classes daily. Whining is a birthright of every college student, but at IIITH it's a culture, to the extent that we have an entire Facebook group dedicated to people complaining about their problems. Though let's keep Life@IIIT-H aside for now.

Still, deep inside we all believe that college life has been the most unfair to us, but if we look around a bit more, it turns out that this might not actually be the case. Let's start with everyone's favourite - the attendance policy. Here I want to mention Savannah College of Art & Design, otherwise known as SCAD, where attendance is a part of your grade, and you are only allowed to miss 4 classes a quarter, with the 5th one resulting in you failing the course. Now, this might still seem okay according to our standards but wait, there's more. If you're over 15 minutes late, you lose attendance. Who's watching, you might ask? The Deans and Founders of the college who are constantly walking through the halls. On top of this, no excuses are entertained, may it be a doctor's note or a funeral photograph. There's more about Savannah, but I don't want to discuss it right now, or I might actually shed a tear or two.

Now since the assumption that we are the college with the cruellest policies is out of the way, we can move to school kids.

Now you may argue that schools have stricter policies than universities, but some of these will definitely blow your mind. And trust me, I'm trying my best to not sound like a BuzzFeed writer.

"The number of bathroom breaks per semester is limited to just three"

Anyways, continuing the theme of limited breaks per semester, let's come to Chicago's Evergreen High School. But this time, it's not about attendance, but bathroom breaks instead. The number of bathroom breaks per semester is limited to just three, and any more will result in the student having to stay at school after hours. Since I was a kid, two things have never failed to astound me - the outer space and the sheer stupidity of school administrators.

Next up, we have the dress code - now we are one of few lucky places in India with zero dress code restrictions, but it's not the same everywhere. For example, there is a school which didn't allow socks with logos in them, because obviously they would distract other people's learning environments. And one where a guy who wore a deep v-neck t-shirt got written up for cross dressing. The students of RMK Engineering College in Chennai

were not allowed to wear jeans or t-shirts at all. Even for going to mess or library, they had to change into formals, and this rule was applicable even on holidays. The craziest part is, once a guest professor from IIT Madras who was supposed to give a lecture there was not allowed inside the college because he was wearing jeans.

In another episode of "What on earth just happened here?", there is a school where students aren't allowed to sit on the ground because 'people would have sex'. In my 18 years of life so far, I never thought that chairs are the thing that have been holding me back for so long. However, this does make me question if there is any use of beds other than skipping through night time and resetting your spawn point.

But no discussion about gender distancing in colleges is complete without mentioning some Indian colleges following such practices. Many colleges in Chennai and surrounding areas do not allow "romantic ringtones" on student's phones, in order to "curb romantic feelings". You might have already heard of VIT, where guards ensure that there is no contact between a boy and a girl, other than three-seconds-or-less handshakes. There, if a guy and a girl are seen together holding hands, you can hear guards whistling (which I initially thought to be a gesture of teasing or even applause) followed by handing out red cards, which they call PDA slips, carrying a heavy "fine". And during the college fests, they even maintain separate areas for boys and girls. But VIT isn't the only institute with a dedicated staff

to keep a check on these happy couples, there are many others. One example is Sathyabama University in Chennai where they used to have separate staircases for boys and girls. In buses, there were ropes behind the first few seats where the girls sat, and boys weren't allowed to cross the rope. Many colleges in Tamil Nadu used to have strict rules applying only to girls, like Sri Sairam Engineering college there are 22 special instructions for girl students, ranging from "No designer watch appearing big in size and in different colours" (sic) to "Should not bring sweets, cakes, chocolates and other snacks in bulk quantity to share with friends" and "Should not have account on Facebook, WhatsApp and other related types of this kind" (sic). Though the way they think of Facebook and Whatsapp as 'types of some kind' makes me doubt their credibility as an engineering college. And the surprise doesn't end here. At a few colleges, trees have been cut off to make sure boys and girls do not gather under them.

"A school had banned the word Shrek"

Even though they might appear to be from the 19th century, these incidents are actually from the 21st, which shows how interaction between the "two" genders is treated in India. Logic is not the only thing missing in the examples in the last paragraph, the existence of non-binary genders is also ignored. Luckily, the globe has two sides. To promote gender inclusivity, the public schools of Lincoln, Nebraska decided not to use the words "boys" and "girls" for students, and use terms like "purple penguins" instead. While a lot of parents complained that academic training is being sidelined, I am personally amused by the idea of a school where everyone's gender is just Aladeen.

In the next amendment of "Freedom of [redacted]", a school had banned the word "Shrek" after a teacher stumbled upon a beautiful "Shrek is Love, Shrek is Life" video. When the authorities at Nichols Elementary school in Texas decided that they didn't want to enforce any religious practice, they banned any references to Christmas. Another school had a rule of suspending students if they said the word
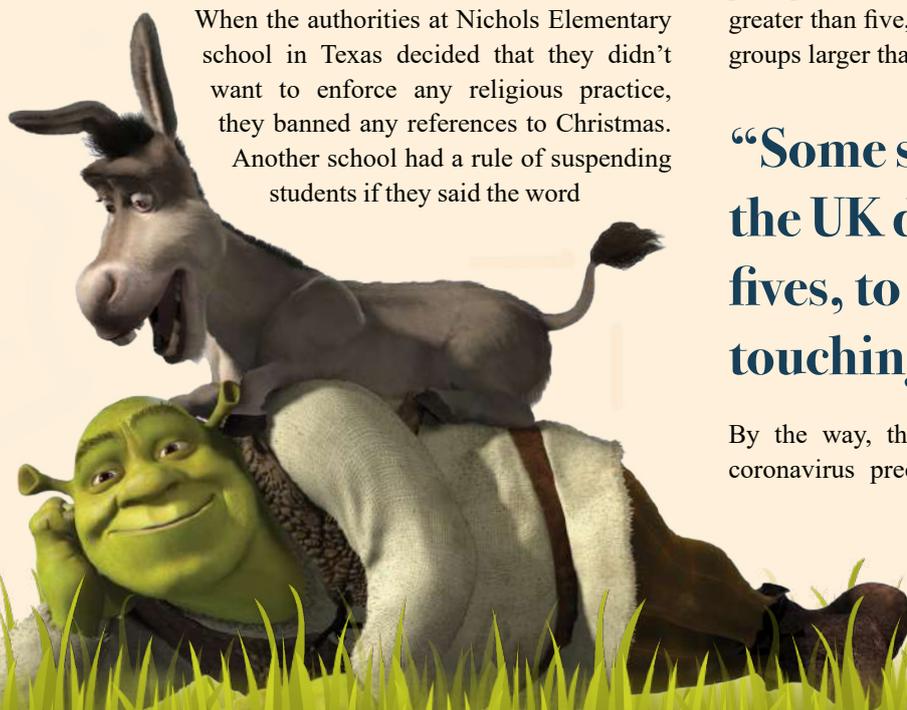
"Pokémon" though they wouldn't know if they were referred to as "Pocket Monsters". And who would have thought a school would ban saying "Oh Snap!" because they assumed it carried a sexual meaning? But my absolute favourite in this category has to be that one middle school where no one was allowed to have or say the word "Dr Pepper" because the administration found out that it was the password to a shared Brazzers account. I don't know if the school realised that by banning it they're giving away the password to the entire school, but I'm sure a lot of students would have had fun that semester. (Also if anyone happens to know the username by any chance, do let me know. For research purposes.)
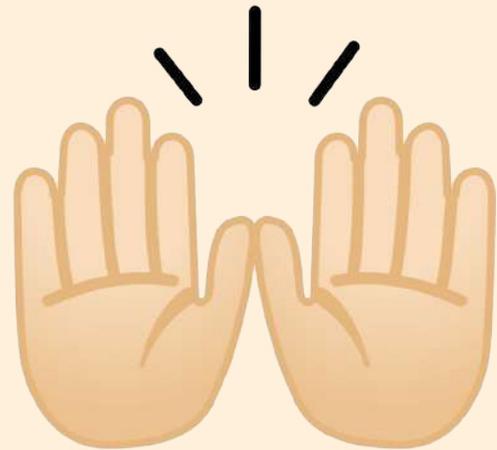
Next up, we have Samworth Church Academy, which was in the news a few years ago for banning students from raising their hands in class. This school in Mansfield argues that the traditional method of answering teachers' questions is outdated and fails to challenge them effectively. An official statement stated that students will only be allowed to raise their hands to establish silence for listening. Apparently this had been a common practice in the academy, and this probably explains why the school's own logo shows two children committing the heinous crime of raising their hands. Moving on, under yet another fan theory of "Is Umbridge real?!", there is this school principal who decided that everything bad happened in groups greater than five, hence students were not allowed to gather in groups larger than five during recess.

"Some schools in the US and the UK do not allow high-fives, to prevent unwanted touching"

By the way, this isn't the only school which was taking coronavirus precautions waayyyy ahead of time. In some

schools across the US as well as a few in the UK, high-fives are not allowed, to prevent "unwanted touching" because according to the schools, this affects students' academic experience. Clearly. And a middle school in Seattle had a rule where students weren't allowed to come within an arms' length of one another. A student here passing an eraser to a friend would definitely be a fun sight.

In the next verse of "This is America", we have Bob Jones University - a religious university in South Carolina which bans jazz, rap, rock and country music, as well as religious music that borrows from these genres; but it's okay to bring a pistol. Now don't get all fired up, some schools do have anti-weapon laws. In one of such schools, a girl brought cupcakes that had little army men on them, which had to be removed because they carried little "guns". Other objects usually not allowed include nail cutters, and objects which are not weapons but shaped like weapons. Though in my opinion, if someone can take over the school with a nail cutter or a Mjolnir-shaped keychain, they deserve to own the school.

"On the annual sports day, prefects started handing out detentions at the finishing line"

But one schools which completely owns every other in terms of random stupid rules is this private school in New Zealand which states in the driving section that students are not allowed to park their vehicles on top of school buildings. I guess the idea of students sitting in a crane and playing around with their cars is not a good one after all. In the same school, it was decided that on school prom, no alcohol would be allowed to be brought in from outside, yet there was an open bar inside the school on that day where you could get drinks for free. But my personal favourite has to be no running on the school grounds - including sports fields. To make the school board realise how dumb this was, on the annual sports day, prefects started handing out detentions at the finishing line. After the

whole school had been given detention, the rule was changed.

Next comes a school from Gondia, Maharashtra which had a rule that you can only leave the class with a partner whenever the students dispersed after classes, and the odd one left would have to wait until they find another odd one, and go out alone at the end if they don't. This school also had a "statue bell" at the end of recess that marked the start of a 90 second period during which students were not allowed to move from their positions, and would often get scolded by the teachers if they did. Another school worth mentioning is Florida's Pensacola Christian College where extra studying during exams is 'strictly prohibited'. The rulebook also mentions that one may not wipe 'boogers' on the wall. Though I totally understand why booger-wiping is wrong, some rules like this one despite making sense make you wonder "What exactly happened that they had to make this rule?". For example, elementary schools are forbidden to host poker tournaments in Fresno, California; it is against Florida's state laws to transport livestock on a school bus; and Kentucky's Asbury University handbook explicitly forbids "occult practices".
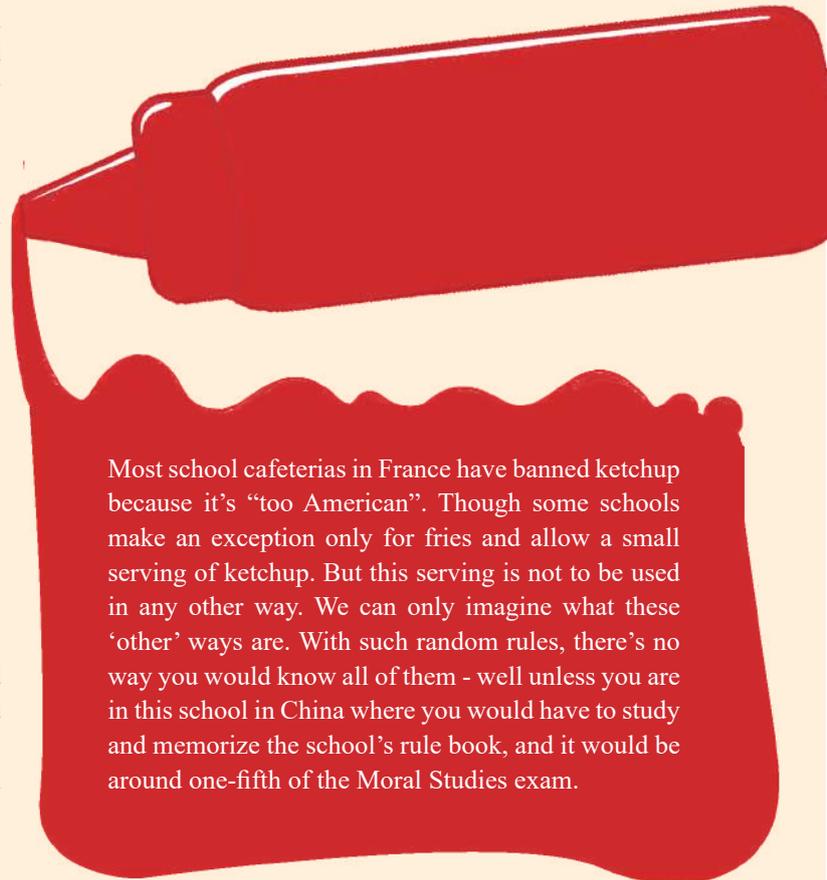
Most school cafeterias in France have banned ketchup because it's "too American". Though some schools make an exception only for fries and allow a small serving of ketchup. But this serving is not to be used in any other way. We can only imagine what these 'other' ways are. With such random rules, there's no way you would know all of them - well unless you are in this school in China where you would have to study and memorize the school's rule book, and it would be around one-fifth of the Moral Studies exam.

If all this wasn't enough, here is the icing on the cake. Schools in many parts of the world, including the UK don't allow best friends. Yes. This was justified by saying that it was done to

protect the children's feelings. The authorities believe that young kids can't deal with so much drama, and that they get too upset after a "break-up" with their best friends. They also complain that best friends disrupt the open environment with their tight bonds and inside jokes. I don't think I have to tell you how wrong this school of thought is, but you might ask how this is implemented. Let's say a child is having a party, then under these anti-best-friend policies you can't give out the invites in class unless you invite every single child. Though they had good intentions of not letting students feel left out, many critics have argued that this approach robs kids of the chance to form valuable coping skills.

"A school banned paper airplanes"

Speaking of feeling left out, we come to the cherry on top. A school banned paper airplanes, and the reason is not what you think. A kid started crying because all of his airplanes sucked and the r e s t of the students knew how to make good ones. And then they all had to suffer. Schools are indeed getting better at teaching life lessons, that you don't have to be good at anything and can always get away by crying.

Now knowing IIIT-H is not the worst place on the planet, it still isn't going to stop any one of us from complaining about our lives. If anyone in the academic office reads this, can we get fewer assignments please? ∎

TREADING THE WATERS OF THE DIVERSITY POOL

Shradha Sehgal • Jaidev Shriram

It is winter 2020 and for the first time in recent history, there are more than 75 girls in the freshers batch at IIIT. Discussions ensue over whether their place in the institute is well-deserved. Strike that. The discussions have already begun. The introduction of the diversity pool has been one of the most polarizing decisions in recent times. As questions of female entitlement and 'undeserved' assistance pervade our mail chains and forum posts, a conversation about the inception of the Diversity Pool becomes a necessity.

Through this article, we wish to shed some light on the fires that the Diversity Pool will put out - the invisible forces that often restrict women from succeeding in the tech world, whilst also exploring the social stigmas and restrictions that inhibit them from joining it.

Many circumstances referenced in this article may not immediately be relatable to some, but that does not make them any less true. The inability to relate to an experience or incident does not invalidate an argument but rather exposes our lack of awareness of the issue. These experiences may be attributed to being a woman in technology, a student in India, and most importantly, a student at IIIT. Hence, we have to find out for ourselves and work against the structures that systematically limit minorities.

SOCIETAL REFORM

When looking at schemes such as the Diversity pool, it is critical to note the society that necessitates it. It was created as a consequence of societal disparities in India and the broader tech world.

THE INDIAN CONTEXT

ACCESS TO COACHING CENTRES

India is a nation notorious for its mistreatment of women where gruesome incidents against them are commonplace. The instinctive response for most parents in the face of such incidents is to "protect" their children by limiting their interactions and freedom, favouring education that is closer-to-home. This inadvertently affects a girl's access to education, risking losing out on greater learning opportunities in favour of "safer" options.

A survey of female students at IIIT that wrote the JEE suggested this. Thirty-five female undergraduates who wrote the JEE were surveyed and asked a variety of questions on the coaching centres they attended. Normally this would've been a small sample size, but only ~52 girls have entered via the JEE

mode in the past four years! Students were asked if they had ever attended a residential coaching institute, the likes of which are popular in Kota and are a common point of origin for many male IIIT students. A mere 4 girls across all the UG batches had attended a residential coaching institute. This is definitely far fewer than the percentage of male students that avail education at Kota. Some reasons they cited were their parents' scepticism for residential institutes and preference for nearby coaching facilities as they did not want their daughters travelling too far. The underlying point here is that when comparing two demographics and their performance on a common exam, we should also compare the equality in access to preparatory material. Girls are not on an equal footing at this front. The Diversity Pool helps alleviate the problem by providing high-quality education to otherwise capable girls that had to settle for less. Arguments that claim women should be treated no differently often ignore the premise that they did not have the same facilities in the first place.

As part of the survey, several students also noted the difficulties of being in a male-dominated classroom. The responses ranged from casual sexism and neglect on the teacher's behalf to a lack of female community. One such response stated that their professor once said: "it doesn't matter if girls do bad anyway they'll end up as wives but boys have no choice that's why they have to do better". Another noted a contrast in the learning process where boys could stay at the institute for longer hours and clear their doubts while they couldn't. Some girls even remarked that they "hated" their coaching institutes due to the awkwardness in interactions and partiality shown by teachers. The dismal number of girls in a class was a common feeling amongst most answers.

Whilst some students did not note any difficulties, the mere existence of the aforementioned issues is a concerning factor. After all, if women are unable to find a conducive learning environment, we cannot expect them to outshine the men who had a better experience.

STIGMA AGAINST WOMEN JOINING TECH

Whilst we have progressed in our thinking, the idea of a female engineer is still foreign in many households. Considered to be "caring" individuals, women outnumber men in sciences such as medicine but still have abysmal numbers in engineering. Even if women didn't have the barrier to a great education, the social stigma against female engineers is enough to suppress the number of women entering the field. In fact, just under a third of all JEE aspirants were girls in Jan 2020[1] and the numbers are often worse in JEE coaching centres (several students noted being just one of 3-4 girls in a class of 50 in the earlier survey). This stigma even limits the amount of expenditure on a girl child's education in some households.

Mindsets cannot be changed instantaneously but increased representation helps aid the process. As the number of women in technology matches those of men, the idea of a woman in tech will become the norm rather than the exception. Measures such as the Diversity Pool help increase these numbers gradually. As more women gain access to better learning opportunities, we break the myth of computer science being a masculine profession. The hope is that a balanced gender ratio is maintained organically in the future, but when the current reality is not as rosy, we need to give a little push.

Following the pool's announcement, many wondered why "grassroot" methods weren't employed in place of the pool. To the institute's credit, several efforts are being made at that level. Admission modes such as SPEC specifically target girls from poorer economic backgrounds (along with integrated program students). Admission fee waivers and relaxed tuition further incentivize reluctant families to fund the girl child's education. As with all benefit programmes, potential misuse is possible but hopefully, the larger result is constructive.

WOMEN IN TECH

Poor access to education is just one facet of the problem though. Globally, women form a minority in the tech industry, and the numbers in India are no better. Just around 34% of the workforce is female as per AnitaB[2][3], a global non-profit social enterprise. The number of women in executive positions is much worse - just 1%. These numbers may be a consequence of the low number of women pursuing CS streams, but there's more to the story.

Women in tech frequently report mistreatment at their jobs, or

1   https://www.shiksha.com/engineering/articles/number-of-jee-main-registrations-2020-decline-ews-and-women-applicants-on-the-rise-blogId-24783
2   https://anitab.org/blog/indian-women-in-technology-barriers/
3   https://www.livemint.com/companies/news/in-india-34-women-are-in-tech-jobs-but-we-at-anitab-org-want-to-take-this-to-50-1569410199742.html

"That's an excellent suggestion, Miss Triggs. Perhaps one of the men here would like to make it."

dismissals because of their gender. Things only get worse when maternity matters come into play. The New York Times has an analytical piece on some "almost CEOs" that were stopped in their ascent to the top. A lack of camaraderie and general hostility towards assertive women seem to be the common thread even in multinational companies. This atmosphere wasn't discovered recently though, it's crept into our psyche and exists across domains. In tech, it is particularly ugly. One just needs to look at the comment sections on pages, or viral gaffes from male executives to see a lack of appreciation for women in tech. Unfortunately, it's hard to visualize or fully grasp the scale of corporate misogyny but the word of thousands of women should be convincing enough. There is a problem, and it isn't going to be solved overnight.

Why is the world of corporations relevant at the university level though? It's relevant because university is the route to such positions, to begin with! A shortage of women in tech shouldn't be surprising if it's known that women barely pursue computer science. Boosting these numbers would diversify a masculine workforce and potentially help change the stereotypes that suppress success. Age-old beliefs that are fueled by a lack of women in tech can only be broken over time with increased visibility. Soon, greater representation at higher strata would automatically inspire young girls to pursue Computer Science as they have role models to look up to. When dealing with inherent sexism and mass disparities, the only way to change the system is to "break the wheel".

The advantage of a diverse workforce is not just social - a

company can benefit from the different points of view and approaches that come from different life experiences. It can lead to more creativity and innovation that comes with a wider team perspective. Researchers have also shown having women on a team can improve team processes and boost group collaboration.[4] Lastly, customers come from all walks of life. The more the make-up of your organization reflects your customers the more likely it is you'll communicate effectively with them. You cannot expect a product to cater to everyone if only a section of people are designing it. Despite these tangible benefits, misogyny is rampant, indicating a deeper illogical divide in treatment of the sexes.

THERE HAS TO BE ANOTHER WAY?

We may have convinced you that there is a need to improve the gender ratio in college. The question arises how do we improve representation? Is the diversity channel really the best way?

The harsh reality of the situation is, families from poorer socio-economic backgrounds are likely disproportionately unwilling to educate the girl child. A combination of low income and an outdated mindset can limit a girl's chances at quality high school education as well. The Diversity Pool admittedly, may not solve that immediately (It focuses on societal change largely that may change broader views in the future). IIIT

4   https://www.researchgate.net/publication/228196582_The_Role_of_Gender_in_Team_Collaboration_and_Performance

could do more to help the situation, by promoting girl child education in schools, enabling them to be competitive in entrance examinations. Another solution to this would be imposing a new cutoff for lower income-brackets. This comes with concerns about academic rigour and feasibility. To be fair, the Diversity Pool has barely kicked into effect, and the results are yet to be seen. In a year, armed with data, IIIT will hopefully amend the process to further accommodate the most disadvantaged.

On matters of implementation, a commonly suggested solution is conducting a different exam for girls - along the lines of SPEC. A different mode of admission would not be different in any way though. It too will always feel like a form of reservation. Imagine that the Diversity Pool was a new mode of admission called FASA. Under FASA, these students would write an exam and compete for a limited number of seats - just like DASA. But here, FASA admits and regular JEE admits would belong to the same socio-economic groups. The difference lies only in the gender and the perception that no seats are being taken from boys in JEE. Couldn't some FASA seats be given to the JEE mode? This argument can largely hold for most modes of admissions as well. The Diversity Pool isn't any different from any modes of admission in that sense. No seats are being taken away from the boys; there's a separate 25% "quota" for girls. The Diversity Pool will use JEE, lending the perception of standard reservation. The choice of using JEE is also for the greater good. As the speaker of parliament said[5], "The JEE reaches out to 11 Lakh students. Implementing another exam would, in fact, just bring down student quality. This itself is one of the 'problems' highlighted by those who oppose the Diversity pool."

Things aren't perfect. It's hard to imagine a perfect system that considers equity in access, income, societal pressures, and more to handpick students. For all the flaws that could be pointed out, the Diversity Pool pushes for a greater female community in tech. That's a good start.

HOW THE DIVERSITY POOL WILL CHANGE IIIT

The diversity channel may have been created to reshape societal structures that discourage women from joining technology but it also stands to reshape dynamics within IIIT. Contrary to popular belief, these reforms are unlikely to dilute the quality of students at IIIT but rather, create a positive and holistic learning environment, whilst sensitizing students about other genders.

A common misconception amongst people is that your JEE rank dictates your professional and personal capabilities for the rest of your life. To all those who have taken the test, we can agree that our performance depends a lot on calming our nerves

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5   https://pingiiit.org/2020/05/the-diversity-pool-interview/

WHY ARE WOMEN UNDERREPRESENTED IN TECHNOLOGY?
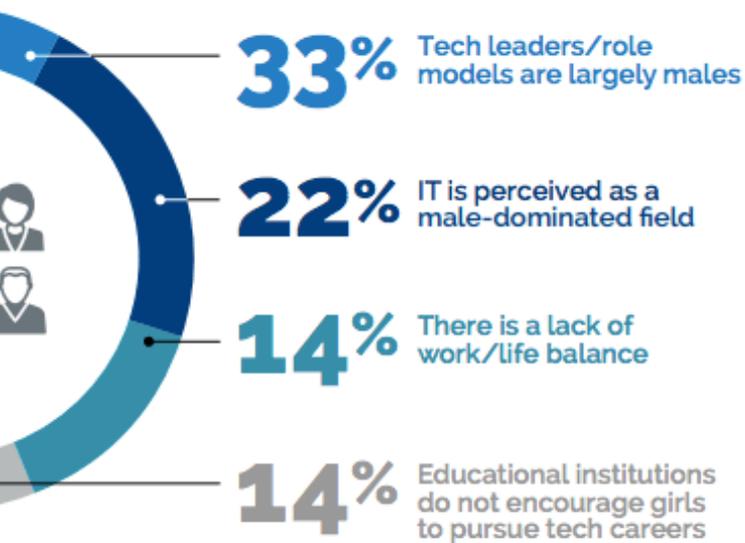Top 4 answers

on exam day and also involves a considerable amount of luck. While rank 3,000 and rank 10,000 sound like they are poles apart, they are different just in terms of a mere 4-5 questions.

We have seen proof of this as students with worse JEE ranks perform just as well (and sometimes even better) than their counterparts. The reality is that there is no conclusive correlation between how a person performs in the JEE versus how they fare in college. The inclusion of more girls through a diversity pool does not compromise the credibility or merit of the institute. Rather, it makes us more inclusive and paves way for more female perspective in discussions and deliberations.

IMPACT ON INTERNAL MISOGYNY

Our perception of gender discrimination is generally limited to what we read in the media - loud instances of sexual harassment and the pay gap at workplaces. However, chauvinism is not limited to the higher rungs of the industry as it takes its roots right at the college level, before ballooning into something far more toxic. IIIT itself is not a conducive environment for existing women as misogyny pervades every sphere of our campus life.

Modern sexism is more subtle than labelling women as entirely incapable - at IIIT, it takes the form of attributing a woman's successes to her peers. Women regularly face mental

33% Tech leaders/role models are largely males

22% IT is perceived as a male-dominated field

14% There is a lack of work/life balance

14% Educational institutions do not encourage girls to pursue tech careers

A NEWFOUND COMMUNITY

Critical to every university experience is the community that lets it thrive. The female community at IIIT is rather small and often misses out on diverse viewpoints that larger groups can offer. A significant part of our college life is the discussions and interactions in our hostel rooms but these are severely limited for the girls, owing to their low numbers. These include both informal interactions and intellectual discussions.

There is a lack of precedence for women taking part in many activities such as competitive programming and open-source contributions. The sheer number of boys pursuing it and the absence of visible female role models can be intimidating and overwhelming. This phenomenon has become especially worse in the past few years as there used to be many women GSoC'ers and competitive programmers earlier. The declining participation is likely due to the dwindling gender ratio (IIIT-H actually maintained a healthy gender ratio till 4 years back - it has only worsened recently). Whilst often overlooked, the lack of such a female community is a crucial point of debate. Greater intake can help build a strong and empowered female clique at IIIT. Subsequently, the 'Outsider Syndrome' that plagues women in STEM may be eradicated as they feel a sense of belonging to the larger community, allowing for richer discourse.

harassment as their work is belittled and they are labelled manipulative or even cunning for availing any gender-specific opportunity. A recent explosive discussion on IIIT's Facebook group for students evolved into a conversation about lewd comments and humour revolving around these diversity programs. Whatever be your opinion of such schemes, we do believe there is a more fruitful way for the community to debate them, rather than demeaning and degrading an entire gender. The confessions page at IIIT is another instance of unchecked sexualization where unwarranted comments are regularly made about a woman's appearance. More concerning than some of the comments itself is their repeated nature.

Such phenomena breed because of the stark minority of women in the college; whenever anyone speaks up, they are ignored or dismissed. These experiences often leave women feeling uncomfortable and instils in them a fear of being excluded and/or alienated by their male peers. With the lack of representation, comes a lack of apprehension for such issues on campus. Hence, the first step towards building a better community involves diversifying it. Inducting more girls into college can help achieve this as it will dismantle the toxic environment against women and no longer allow for an entire gender to be overshadowed by the majority. As they say 'strength lies in numbers' and that cannot be achieved with the ratio at an exiguous 1:10 figure.

CONCLUSION

A shortsighted view of the topic may deem the channel unfair and unnecessary, but a deeper analysis highlights the years of discrimination against women in engineering - from the lack of role models, overprotective parents, preference for the education of a male counterpart to mental and physical harassment in work environments, and the outright rejection of the scientific aptitude amongst females.

Including more women in the field not only tackles the societal problem of gender diversity in STEM but also improves the standard of innovation and invention as one cannot quantify the diversity of thought and approach of a female perspective. The best time to increase representation is at the university level when students gain mastery in their subjects.

For an institute that prides itself in its inclusive and progressive nature, we must take proactive efforts to improve the status of women in our college. Whilst all the deep-rooted issues surrounding gender inequality in STEM cannot be changed overnight, the Diversity Pool is a step in the right direction. We cannot wait around for mindsets and perspectives regarding women to change organically and must take immediate and dynamic measures that destroy such sexist structures.

The Diversity Pool is neither the definitive answer nor the damnable evil - it is just a step in the right direction. If executed well, a balanced gender ratio will be maintained naturally in the future, without the need for targeted schemes. Rather than nitpicking over fine details and finding faults with the institute, it is high time we rally behind the pool, help make IIIT an all-inclusive space, and break the glass ceiling around STEM. ∎

WHY HUMANS FIND IT HARD TO STAY AT HOME

~SREEHARSHA PARUCHURI

You've got your eyes on the prize: it's a plump catch. It'll make for quite the feast when you get back home. Ah, the very thought of home brings a smile to your face. With a sense of triumph at having found such a fine specimen, you release the arrow -only to see it bounce off the animal and fall to the ground. As the sense of bewilderment consumes you, the animal locks your puny figure in its sights and charges. The adrenaline levels in your body upsurge and the hormone gushes through your arteries to every muscle tissue. You run. It catches you. You're dead.

"BEING TOGETHER MEANT SURVIVAL. NATURAL SELECTION TOOK CARE OF THE ONES WHO DIFFERED"

Our early ancestors, the hunter-gatherers, were quick to realise that surviving alone wasn't easy. Getting enough calories, staying safe and warm or caring for offspring was practically impossible alone. This led to our brains becoming more and more fine-tuned to recognise what others thought and felt, and to form and sustain social bonds. Thus, with time, being social became a part of our biology. Being together meant survival. Natural selection took care of the ones who differed. In a nutshell - humans have evolved into the social beings they are today primarily because of the need for communication between one and other in the Paleolithic era.

Jump to today's world, we can see how the above is an example of why the human species has evolved to be what it currently is: a huge network consisting of over 7.7 billion people all working together and, in the process, stepping outside their houses.

Be it for educational purposes, job-related, or just to go out and have a good time with your pals, we socialise. Despite the modern age allowing us to be so well connected to one and other via the internet, we just can't seem to match the 'vibe' of being around these people in person.

A lack of this interaction does trigger our biological response of feeling lonely. The level of cortisol, a stress hormone, goes up. This impairs the body's cognitive performance, compromises the immune system and increases your risk for vascular problems, inflammation and heart diseases. Observing this phenomenon through a psychological lens, if we fall short of these deep/social connections that we crave (which are realistically not so easy to find), the emotional distress that follows has been shown to be associated with increased pain perception, thus not limiting the pitfall caused by loneliness to the mental level but having adverse effects on one's physical being.

It is well known that your mental well-being is strongly correlated to the state of your physical well-being. Exercise is one of the methods taken by people to ensure a solid state of physical fitness, but how exactly does this affect your mental state of mind? Why is it such a key factor in wanting to leave the house?

Endorphins, the body's natural morphine masks the feeling of pain. This hormone allowed our ancestors to run from predators when injured. While running away from predators isn't a situation faced by an everyday Joe, exercise causes a similar release of endorphins into one's body resulting in a palpable feeling of euphoria, lack of receptiveness to pain. Thus people who exercise experience an improved mood, reduced stress and increased satisfaction in oneself, decreasing one's chances of falling prey to depression. The above has been shown to occur when the levels of dopamine and serotonin increase along with endorphins. Speaking of things that make one happy you could also argue that eating a doughnut or two would give you the same amount of pleasure (afterall, 'pleasure' is just the sensation caused by the release of a hormone) and while that certainly is easier and sounds way more delicious, you'd still have to go out to grab one or to get the ingredients to make one and satisfy yourself. Further psychological and biological studies have linked a healthy body to a healthy mind.

Clearly, exercise - be it a small walk around the block or a full blown workout- has multiple effects on one's body and while there are exercises that can be done at home, nothing beats an early morning jog outside with all the fresh air or a solid training session with your mates at the gym. People know about the perks of staying physically fit and that makes it all the more harder to stay bottled up at home for long periods of time.

Speaking of a healthy mind, when I asked people what their definition of a healthy mind is, most of them replied with something along the lines of "A happy mind is a healthy mind". If I were to ask you, "What is the one thing you'd want in order to be happy?". What would your answer be? Money? A Maserati? A Mansion? A trip to the Moon? While all of the above are undoubtedly very appealing in their own sense, my answer differs ever so slightly. The one thing that I'd love to have in my life is a sense of satisfaction in things that I do. To be satisfied with who I am as a person. To put it in a slightly less crude sense, the thing I'd yearn to possess is validation.

"THE ONE THING THAT I'D LOVE TO HAVE IN MY LIFE IS A SENSE OF SATISFACTION IN THINGS THAT I DO. TO BE SATISFIED WITH WHO I AM AS A PERSON"

The sense of satisfaction/validation is something that everyone has experienced in life be it in the form of appreciation from your parents on something you've done or from your team when together you have achieved what you've set out to do. A closer inspection of the latter makes it evident that it is the completion of a task (it need not be academic/job related as such) that gives us a sense of validation, this end result can only be achieved after putting your back into it. As well as providing for one's bread and butter, work allows us to experience the joy in focussing on a task at hand. People have many motives to work, be it for the betterment of the environment and thus mankind, to break records, for others entertainment or for the country. The list goes on, but the question still remains, why

work? The simple answer is, we do it to feel good about ourselves. It is also interesting to note that people can develop a tendency to associate places with a task, be it sleeping or indulging in an activity thus boosting efficiency and the want to focus on the task at hand. Take the example of the workspaces at Microsoft or Youtube, these companies understand that providing the right environment for work as well as ensuring a relaxed yet determined state of mind of its employees is crucial in order to get the best out of them and meet deadlines on time.The concepts from the psychological theory of place attachment are clearly visible as we can see companies investing into good quality infrastructure (even beds in offices!) and open areas in order to keep the morale of the workers high and make them associate the office space with a sense of productivity and enjoyment rather than a cold grey cubicle of misery. It results from the same theory that some people find it hard to stay productive at home which is very natural but the lack of task accomplishment can surprisingly inundate an individual, leading to restlessness which is the crude way of hinting at increased stress levels.

In a world in the midst of a global pandemic, us humans have seemingly acted very counter-intuitively and naively, directly disobeying safety notices issued by the government, hoarding supplies and not thinking twice about the needs of others. These imprudent actions just go to show how much human beings, like other physical items in nature, display the quality of inertia, the lack of willingness to digest the situation and change our ways. despite there being multiple warnings and actions being taken against people going out, we continue to see posts of people out and about. As bemusing and alarming as it is, these visuals subconsciously affect us. As the days go by, it is up to us to think twice about heading out, be it for work (there are a fair number of blue collar workers whose lives depend on moving from place to place, staying at home is associated with unemployment for many), or to purchase essentials. Recently, the phrase "learning to live with the virus" has made an emergence and I feel that while the idea may seem irrational and totally absurd, this quarantine has given us time to learn what are the do's and don'ts for when the need to step outside arises. It is imperative that we comply with the health and safety measures, only trust reputed news sources and not get inundated by the ubiquitous influence of fake news. Finally we should spare thought for how our decisions impact others as we have to stand united in the fight against COVID-19.■

DING!

What if being straight Was a taboo ?

Facts: Sexuality isn't absolute. Gender isn't binary. They are both fluid and gradient.

Everyone has the right to identify and express themselves in whichever manner they please. Yet there are still a few people in the world, "few" being a gross understatement, who can't seem to respect that. Homophobia is a concerning issue, and it can be further fueled by a person's fear of standing up against it. People shy away from even having conversations about the issue as if supporting homosexuality would somehow make them gay by association. They discourage the mere mention of homosexuality as if it's some sort of a taboo!

But what if things were the other way around? Imagine a society where people are criticised for being straight. And yes, I'm aware that in most eastern conservative cultures, displaying sexual fantasies or desires of any sort have always been frowned upon. So, it would seem that being overtly straight would be considered taboo as well. (This is evident from all the anti-PDA rants on the Facebook confessions page.) But let's imagine a society where being gay is the norm and being straight is frowned upon...this is, in essence, the fantasy of every gay kid in the closet ever.

Here's a short story to give you a glimpse of what could happen:

In the far distant future, humanity won over climate change and energy struggles. Now the biggest problem they faced was overpopulation. This led to a gradual shift in people's mindsets about reproduction. The "hum do humare do" policy was reformed to one and then eventually to zero. People started to criticise straight sex, and heterosexuals were shamed for having perverse sexual preferences which were a threat to society. (If you dare argue that they could just use protection, I double dare you to find a logical reason for shaming homosexual sex.) As a result, the LGBTQ+ com

munity gradually gained more and more political power, and straight sex was eventually made illegal. New babies could only be 5D printed when someone died so the balance was maintained. Heterosexuals eventually became a minority.

Simon was born into this future and struggled through childhood because his way of dressing and behaving wasn't popular among the other kids. He was always the centre of everyone's destructive criticism.

As a result, Simon was subjected to a lot of bullying on a regular basis. He got called a freak and an attention whore and was often pressured to do ballet (which he did not care for). When he tried to play sports, he'd become the butt of jokes like, "What's the hardest part about being the captain of a rugby team? Telling your parents that you're straight!". Girls wouldn't go near him, because they were afraid he'd be attracted to them or worse, people would tease But Simon couldn't run from the truth any longer. He finally grew the balls to come out to his fathers that day. "Dad, it wasn't a joke. I like her, I... I like women and I'm straight, but I'm still the same person!", he beseeched. His parents didn't take the news well. In fact, they couldn't seem to take the news at all. The shock hit them so hard they went into denial. "Honey, you're just confused. I know you're a teenager, your body is changing, but this is just a phase. You'll get over it." His dad said, struggling to be compassionate. "Exactly! You wouldn't feel that way if you had a boyfriend, maybe you should stop hanging out with all those girls and try to find a boy." His other dad joked. But when Simon only repeated himself, his parents started freaking out. hem, calling them straight by association too.

At around 13 years of age, Simon started to truly understand

that he was different from the rest of the boys. At 16, Simon had his first crush on a girl. Now being a straight man, he was filled with the confidence that she wanted him too. So, the plan was to keep writing her love letters (not exactly a very straight thing to do, I know) and not take no for an answer. Tired of being hit on relentlessly, she complained about this to the principal, and then to his parents.

"Was this some kind of dare? Is it a prank? Honey, this is not funny. You could go to jail for this." His dad said, his other dad nodding alongside him. Although they had always kind of suspected it was true, they kept their hunches to themselves and Simon had never enjoyed talking about his feelings anyway. "Sweetheart, I'm glad you opened up to us about this. I'm sorry I didn't take you seriously at first, but now I understand. And I just want you to know there's nothing wrong with you, you're not weak. Having a mental illness does not make you a sinner. We will consult the best psychiatrist. If needed, we can also use the money we saved up for your college to afford hormonal therapy. We'll register you for the straight conversion camp this summer right away."

After that, most of the kids avoided him. The rest he tried hard his best to avoid himself. Getting beaten up and bullied sure was a pain in the ass, but the teachers siding against him felt worse, parents of his classmates didn't want to send their children to the same school with 'a perv' and they would threaten to take matters to the police unless the school kicked him out. One day, the girl he had written the love letter for walked up to him. "Simon, I know you must feel bad because of what happened, but I think heterosexuals are just like precious Christmas decorations!" He didn't fully understand that compliment, but he immediately felt relieved and leaned over to hug her. "Because they should be hung on a tree and lighted up!", she yelled. Simon felt as if the floor was slipping beneath his feet, he could not comprehend how someone could say something so cruel. And then he literally slipped and fell as the girl smacked him down. Wiping her hands off as if his touch agitated her, she said, "I hope that didn't arouse you, you creep!". Then she stepped over him and walked off as everyone pointed and laughed.

Simon felt powerless but he was physically unable to cry. He'd always end up aggressively punching the wall instead, in an attempt to feel in control again. The constant bullying was nothing new thing to him, he'd grown resilient to that throughout his childhood. But the fact that his parents were

shamed in society was unbearable to him. He blamed himself for the disappointment he could sense in his fathers for the first time. He couldn't see any other way to end this other than by taking his own life and would've gone through with it if Neha hadn't talked him out of it. Neha was one of his only friends, but they only knew each other through Tumblr, where she ran a hetero pride blog that Simon followed.

India had never gotten around to accepting the section 733 of the new penal code (which declared heterosexuality as a criminal offence), not because the government was fair and sensitive, but because Indians showed the most inertia against accepting change.

(Who said having an overly orthodox culture is always a bad thing for society, huh?)

Neha was always there to console him and they slowly started to develop feelings for each other. At age 18, Simon left home and ran away to India. He imagined he could finally live his truth once he got there. But he soon realised that the people there weren't completely accepting towards heterosexuals/hets, they were just passive about oppressing them. Simon had to hide his sexuality to be able to get a job as a waiter in a hotel. The manager often asked him to deny straight couples a table, because they would apparently make the rest of the customers uncomfortable. In their free time, Simon and Neha would join activist groups to fight for their rights and dignity. They would always have to sneak away to be together but a few years later, Neha gathered the courage to come out to her mothers. Who, on the bright side, didn't freak out. They didn't abandon her, kill her in the name of honour, or abuse her. They stayed calm and dealt with the situation in the most Indian way possible…. They arranged her marriage with the daughter of a family friend to save face.

Simon moved on and continued to fight for his cause. Every day he would face hate mail and death threats, people yelling heterophobic slogans like

"Don't be straight, or you'll go straight to hell"

and "castrate the straights" to his face. People would post #hatethehets on social media. Nobody would listen to what Simon had to say. People shamed the straights, claiming that being straight was just an excuse made by sore losers, who were too ugly to find a gay partner. But Simon persevered, and he formed an organisation called the "SUPER HAPPY FUN INDIA" (I'm not kidding, this is an actual thing, google it). He kept holding protests and demonstrations. Over the years, more and more people dared to come out and join the cause. They taught the people that love is love and that

#straightrightsarehumanrights.

(To which others argued that, ALL rights are human rights!) They explained that they were born this way. Simon held the first-ever ...wait sorry, second-ever (we've already witnessed the first one last year, *facepalms*) straight pride parade, near the hotel he used to work at. But people resisted him with posters reading "Simon go back." People made fun of the straight pride flag (which was just vertical black and white lines as a contrast to the rainbow), by comparing it to jail bars, saying that's where the hets belonged. In the end, Simon did win equal rights for heterosexuals, but not everything changed. Heterosexuals still didn't get enough representation in the government. They didn't have job security. The gays would still openly discriminate against them. Public display of straight love was either condemned or was sexually objectified by lesbians. Consequently, straight kissing scenes in movies were still censored to a greater degree than gore was. Gay people would hit on straight people in bars and claim that they could "turn them gay" if they agreed to be with them for a night. Straight couples couldn't adopt children because the government had ruled that having parents of two different genders cultivated a volatile home environment and thus unfit to raise a child. A kid should either have only fathers or only mothers.

It took Simon four long decades for straight weddings to finally be made legal. And even after all those years, Neha could only truly love Simon. She divorced her wife and married Simon, and they knew they'd live happily ever after. But they sadly couldn't get a wedding cake from the town's most popular bakery because the owner still didn't believe in straight marriages and could evidently deny customers service for no good reason.

This story may sound fictitious, and yet it doesn't even compare to how unfair present society is to people who aren't cisgender heterosexuals. For example, it doesn't even begin to cover the issues faced by the (bi/pan/a)sexuals. The existence of their orientation hasn't been properly acknowledged to this day. It doesn't say anything about transgender or non-binary people. But the main takeaway here is to stop perceiving the LGBTQ+ community as freaks, to educate ourselves about the issues they face and support them. And for those who complain about "straight pride" not being a thing, just be grateful that it hasn't come to that yet. If we can't shape society such that gay people don't have to come out, then it should be our responsibility to at least ensure that anyone willing to come out doesn't feel too insecure to live their truth. If more people learn to grow out of that binary mindset and are more willing to accept everyone's differences, we can have a more colourful society, where no one would ever feel like being themselves is a taboo.∎

IIIT SPENDING TRENDS

Tejasvi Chebrolu

PREMISE

The Spring 2018 semester saw the stalls in and around JC move to the area near the basketball court. This led to a decrease in JC visits from female students. Since IIIT students are known for their laziness, we assumed that since JC was closer to Parijaat, girls were more likely to spend more money than boys on JC drinks. However, to our pleasant surprise, this was not the case. So, campus spending trends were even among genders, but is it the same across batches? We put out an anonymous form and here are the results.

What would you assume was the thing that most people on campus spend their money on? Food seems like the most appropriate answer. However, how exactly is this distributed amongst eating out, canteens, leisurely activities, going out, etc? Do most people end up spending their money at JC or BBC? Or do they spend more on ordering out? A surprising(?) revelation was that around 60% of the students spend between 500 and 2500 rupees a month ordering out for food.

"Around 60% of students spend between 500 and 2500 rupees a month ordering out for food."

Now, since this form was spread by pestering messaging people across common friend groups, this data should be taken with a pinch of salt and it might not represent the entirety of the campus. Obviously the entire student population could not be polled and this might lead to biases in the data.

What if you were to add the amount spent on your daily Oreo Shake and Maggi in the canteens? The number increases to a very high 75% of students.

This speaks volumes about the quality of the mess and the fact that three out of four students are willing to spend huge amounts to satisfy their cravings. That being said, eating out is better than eating at the mess, but the amount that students spend eating out is quite considerable and drives home the long-standing feeling that the mess is not upto the mark.

We surveyed students from our college - responses from 137 students across 4 batches(37,21,53,26 students in each batch respectivley) and we found that the responses were quite interesting.

It is not just food that burns holes in the students' pockets Many students spent quite a bit of money on items for recreation. The ban of coke and other hard soft drinks in the campus also caused students to look outside for their beverages which further emptied their wallets.

"IIIT students are more inclined to order than head out for their food."

IIIT is lucky to be located in Gachibowli, a place where there are multiple eateries. The fact that we have DLF nearby is also a good reason why people look outside to satiate their hunger. However, IIIT students are more inclined to order than head out for their food.

This is most likely because of the fact that ordering is cheaper because of the massive discounts that apps like Swiggy and Zomato have to offer or maybe we as a community are lazy. Although the percentage of students in the range 500-2500

rupees per month is the same(60%), the split is more towards an expenditure of less than 1500 rupees per month(47%).
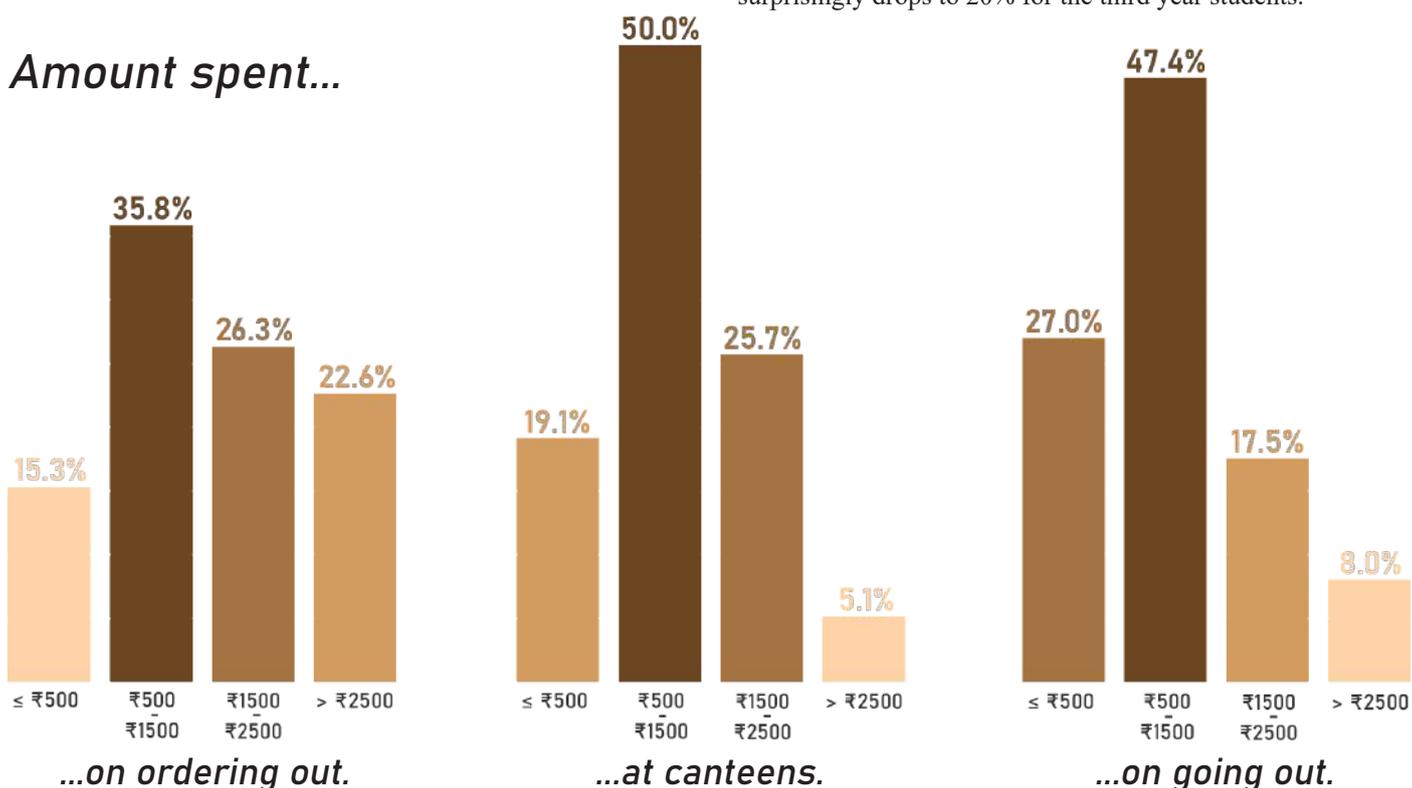
IS THERE A MAJOR DIFFERENCE IN SPENDING TRENDS ACROSS BATCHES?

It would not be incorrect to assume that as the more time you spend in college you spend more money. The freshmen and the sophomore in any college have fewer sources of income and hence they resort to using their parents' money. This should, hopefully, mean that they spend less than a senior or a junior. The juniors and seniors in a college usually have a high-paying internship and/or other sources of income which allows them to spend a larger amount and far more frequently.
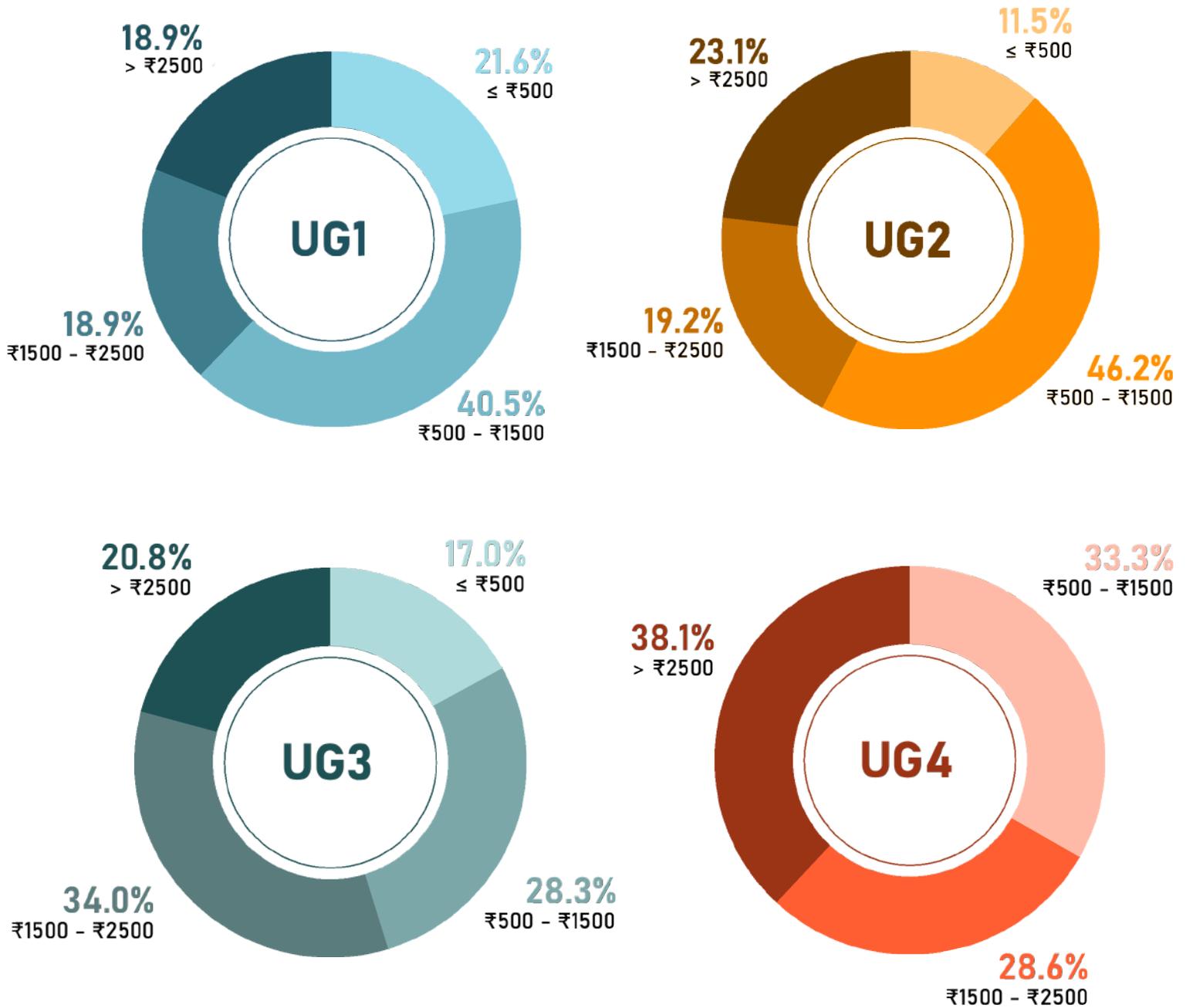
FOOD

It is clear from the data that as the years go by students are more inclined to spend more. It seems like the purchasing power and aversion to mess food increases the older you get. Only around 18% of the freshmen spend more than 2500 rupees ordering out. On the other hand, almost 40% of the 4th years spend more than 2500 rupees on the same. This percentage slowly increases with around 23% of sophomores spending in excess of 2500 rupees. An interesting observation is that this number surprisingly drops to 20% for the third year students.

Amount spent...

...on ordering out.   *...at canteens.*   *...on going out.*

Spending trends across batches

UG1
- 18.9% > ₹2500
- 21.6% ≤ ₹500
- 18.9% ₹1500 – ₹2500
- 40.5% ₹500 – ₹1500

UG2
- 23.1% > ₹2500
- 11.5% ≤ ₹500
- 19.2% ₹1500 – ₹2500
- 46.2% ₹500 – ₹1500

UG3
- 20.8% > ₹2500
- 17.0% ≤ ₹500
- 34.0% ₹1500 – ₹2500
- 28.3% ₹500 – ₹1500

UG4
- 38.1% > ₹2500
- 33.3% ₹500 – ₹1500
- 28.6% ₹1500 – ₹2500

CONCLUSIONS

According to Maslow's hierarchy of needs, food is one of the more important physiological needs. Now, IIIT students are lucky enough to get water and warmth. Food, however, seems to be something that the college is unable to provide to our satisfaction and hence students are left with no option but to buy better food. Only if you could buy sleep, we could be physiologically complete. ∎

Wendy the Wise

OUR ASSOCIATE WENDY SEEMS TO WANT TO BE "HIP" AND "HAPPENING" AND THUS WOULD LIKE TO ANSWER YOUR QUESTIONS WITH THE HIGHEST FORM OF COMEDY – MEMES. PLEASE DON'T GO AWAY.

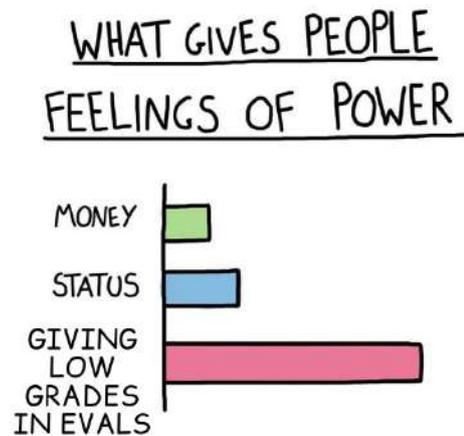Legend: Q- questioner, W- Wendy (obv)

Q: Me and my friends always chill out, even before the exams. Yet they seem to always score more than me. Why does this happen?

W:

Q: There was so much debate about cross entry. There was even a Life post about it, what's happening to it?

W:

Q: Why do all the TAs fuck us over in evals? Please help.
W:

Q: I am getting really pissed at all the people demossing in OJ. I could only do 5 but people have simply copied each other's code. I think this is really wrong. Should I complain? I don't want to as they're my batchmates but I am highly considering it.
W:

Q: I see a lot of confessions but am wondering how many of them are true? I'm considering making a confession on the girl I like but will she believe it or will she think it's fake?

W:

Q: I have a friend whom I have started liking since a few months. How to know if she likes me back?

W:

Q: I feel jealous of single degree students. They'll leave and get internships while I'll be stuck doing some useless research. What can I do?
W:

Q: I do all my assignments by myself but my friends copies it from me. What should I do? I don't want to complain but if I say no they call me a kassi

W:

Q: Why does Ping! suck?
W:

Q:Why do all students think that every DASA is from Dubai?
W: