



Clash of the Scitans

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Photo : Dr. V S Rao

Nilima Walunjkar

The maiden national Science Slam of India was organized by EURAXESS Links in association with IISER Pune. The finals were held on the 27th of September, 2013 at our very own LHC. For those who have never heard of a Science Slam, it is a contest in which researchers present their work, minus the jargon, so that the masses too can comprehend the latest advances in the numerous fields of science.

EURAXESS Links is a European organisation that aims at increasing collaborative research between European scientists and those in other countries.

The winners of this and parallel Science Slams in other countries get the opportunity to attend EURAXESS Voice of the Researchers Conference which is to be held in November at Brussels.

The preliminary round conducted in August, required the participants to make a seven minute video presentation of their Ph.D research. The only criterion was that the research work had to be presented in an innovative and simple manner.

The acid test was passed by Shraddha Karve of IISER Pune, Anupama Engineer and Prasad Bhagat of Agarkar Research Institute and Binita Shah of Mumbai. The event kick-started with a video and

then the judges were introduced. The elite panel consisted of Dr. R Gopichandran, Director of Vigyan Prasar, Dr. Megha (NCBS), Dr. Ashok Rao (Mysore) and Dr. Guruswamy Kumaraswamy (NCL).

Each participant was given ten minutes to deliver their presentation followed by a question-answer session with the audience and the judges. Shraddha started the series with a talk titled Master of All trades, Jack of None speculating whether there exists a correlation between bacteria that can survive fluctuating environments and those that can develop resistance to a wide range of antibiotics. Next up was Anupama, whose talk highlighted a more efficient and eco-friendly method of synthesising commercial antibiotics. Prasad spoke about using carbon nanoparticles to target cancer cells in chemotherapy and Binita talked about the Life Cycle Assessment of coal power plants in India. Their responses to the intense questions posed to them were remarkable.

The spectators waited with bated breath as the moment of the announcement of the results drew near. After drawing out the suspense, Dr. K. N. Ganesh finally revealed the winner- Shraddha Karve, who also bagged the Audience Prize.

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IISM is coming

You can feel it coming when you look at the calendar. Everywhere you look, if you look closely, you see people counting days; how many days since the construction work on the athletics track began; how many days since they started training in earnest; how many days until December 11th?

For those in charge of organising the events, things are getting a bit hectic. A large part of this is due to the fact that we will be hosting a few hundred of our counterparts from across the country for the duration of IISM-2013. Food for a few hundred people is a lot to have on one's plate. Add to that the effort that goes into arranging accommodation, officials for the various sports, equipment and other materials for the events and all the other vital cogs in the machine that is the sports meet, much there is much scope for messiness.

A closer inspection of the work that

has happened over the past month and a half, paints a far more promising picture though. Seeing work on the athletics track get in the groove with the promptness that it did was pleasantly surprising.

The lights make the volleyball and basketball courts quite a spectacle at night. While the narrow and bumpy football field does still leave a lot to be desired, the general mood is still optimistic. Cricket and badminton are trickier affairs that will see the sports meet being taken outside the boundaries of the institute.

A quick look at the (soon to be announced) schedule gives one a glimpse into what could be the busiest four days on campus for a long time to come.

The seriousness with which training schedules are being followed, makes it clear that this is an event that will leave its mark on our institute for a long time to come. Of course, in the midst of all the competitive fervour,

Yagyik Goswami



we mustn't forget that we shall be hosts to students from the other IISERs, and that we should do our best to make their stay happy and enjoyable, except when they are actually playing.

Clean We'll Drive



Photo : Neha M

Unlike other clubs at IISER, Prutha is open to anyone who wishes to contribute to saving Mother Earth. This, coupled with the innovative ideas that the members put forth in the first general meeting, attracted me towards Prutha. About a week or so after the first meeting, we planned a clean-up drive at Pachavati hill near our campus. The hill is a popular location for regular jog-

gers and is also a weekend picnic spot. We left early and were joined by Dr. Anirban Hazra who gave us a brief history of the hill on the way. I was amazed to see that the hill was like a mini-forest right in the heart of the city. For the first half hour or so, everything around us was lush green, and I started feeling that a clean-up drive at such an untouched place was pointless. We later

Shreyas Malpathak

reached a lake, which to my surprise was not as untouched. We saw a number of soda bottles and polythene bags floating on the surface. Hereafter the number of plastic bottles and bags lying around seemed to be ever increasing. Dr. Hazra told us that the trees on the hill had been planted by companies. Interestingly, the black bags used for carrying the plants had been dumped on the hill itself. It was peak jogging time, while we decided to jog back. We took advantage of this, and raised a slogan - *Ithe kachra taku naye*, which means, Please don't litter here. With the heavy garbage bags on our shoulders, the return journey seemed endless, but the cry of a peacock caught everyone's attention and lightened the mood.

The drive was very refreshing and the satisfaction that I got after helping clean the hill up can't be expressed in words.

Note from the Sentience team : held another clean-up walk on the 10th of October, within the IISER campus itself

Of Science, Sushi and Serendipity

Adithya Rajagopalan

The words *Arigato Gozaimasu*, *Ohayou Gozaimasu*, *Konichi-wa* ring in my head as I sit down to write this article. They bring back some awesome memories and the images of a lot of people! The Asian Science Camp was in Tsukuba, Japan this year, and what an experience it was!

From our first meeting in Bangalore to our last meeting, Arushi and I (and I'm sure everyone who attended the camp) enjoyed every moment of it. Be it listening to and interacting with students and Nobel laureates from other countries, or explaining the posters that we made at the camp, the educational aspect of the whole program was an amazing experience. In our interactive sessions, we were not only able to understand the thought processes of pioneer scientists, but also got to see how students from other countries think. We learnt a lot of different things from the other delegates and realised that science is not taught in the same style around the world.

Not only did we learn a lot of science, but we also learnt a lot about Japanese culture. We got to try our hand at Japanese calligraphy, origami and dancing. We were also taken on a day long tour of Tokyo and got to see the local sites.

So, What was the most interesting part of the whole trip? one might ask. The answer to that is: the toilets. Calling them fancy or any of its synonyms doesn't quite do them justice. They were completely automated and blew our minds away.

Another WOW aspect of the trip was the punctuality and politeness of the Japanese people. Sometimes they were so polite that I was afraid of talking to them in case I ended up saying something rude.

The grand finale was the farewell dinner, where members of different delegations put up performances portraying their nationality. Everyone joined in during this showcase. These performances made all of us sing and dance together and the greater lesson we took away was that scientific collaboration should happen with total disregard to nationality.

The camp, as I said before, was amazing, and writing this now makes me miss all the wonderful people I met and I wish I could somehow go back in time and do it all again. If there's one thing I learnt at the ASC, it's that the end of the universe (sky doesn't seem to encapsulate what I want to put across anymore) is the limit.

Academic Buzz

Sourav Sarkar

1. Science Academies Summer Research Fellowship Program for Students and Teachers 2014

Venue: Research Institutes and universities in India

Dates: 2 months in the summer of 2014

Application deadline: 30th November, 2013

URL: <http://web-japps.ias.ac.in:8080/fellowship2014/>

2. WISE- Working Internships in Science and Engineering

Venue: Research institutes and universities in Germany

Dates: 2-3 months in the summer of 2014

Application deadline: 1st November, 2013-10-09

URL: <http://www.daaddelhi.org/imperia/md/content/newdelhi/wiseannouncement.pdf>

3. Summer School at Universite de Lausanne, School of Biology

Venue: School of Biology, Universite de Lausanne, Switzerland

Dates: Summer 2014

Application deadline: Applications shall start mid-November, 2013

URL: http://www.unil.ch/ecoledebiologie/page80684_en.html

4. School and Workshop on Physics of Cold Atoms

Venue: Harish Chandra Research Institute, Allahabad

Dates: February 10th-14th, 2014

(School), February 15th-16th, 2014

(Workshop)

Application Deadline: November 15, 2013

URL: <http://www.hri.res.in/~cmschool/coldatom/>

5. Winter School 2013 - Frontiers in Material Science

Venue: JNCASR, Bangalore

Dates: December 2nd-6th, 2013

Application deadline: 25th October, 2013

URL: <http://www.jncasr.ac.in/winter-school/>



Photo : Arushi Bodas

KREEDA JUNG 2013

The annual intra-IISER sports meet that took place this Fall ended on a high note. Here are a few insights on IISER-P's sports extravaganza:



BASKETBALL

WINNERS

GALAXY Kashyap
Prachant Sharma
Shreyash Tandon
Sourajit Basu

RUNNERS UP

Ashijith Gandrakota
Anurag Mishra
Shresh Kulhari
Sourabh Bhide



TUG OF WAR

BOYS FINALS - Batch 2009 Vs. Batch 2013

WINNERS - Batch 2009

Abhishek M, Abhishek S, Raju L, Amrit K,
Prabhu D, Sharath J, Anurag M, Gaurav A,
Jeeten P

GIRLS FINALS - Batch 2010 Vs. Batch 2012

WINNERS - Batch 2010

Rachana B, Dincy M, Kshiti M, V R Kithika,
Neha B, Meghana, Maitreyee M

CYBER GAMES

NEED FOR SPEED - WINNERS

G Aniruddhan
Varun Srivastava
Abhilash Sawant

FIFA - WINNERS

Pratyush Kumar Mishra
Omkar Manjarekar
Aditya Katti

COUNTER STRIKE - WINNERS

G Aniruddhan
Abhilash Sawant
Debarun Gosh
Atharva Patil
Brijesh Meena

VOLLEYBALL

FINALS - 5th Years Vs. Serve Ivors

WINNERS

Sourajit Basu
Shreyash Tandon
Ravi Raja
K S Supreet
Anurag Mishra
Sourabh Bhide
Amrit Kumar
Upendra Kumar



A Tryst with an Astrophysicist

Continuing with our current trend of interviewing physicists, the Sentience Team popped into Dr. Rajaram Nithyananda's office for a quick chat. Here are a few bytes from the starry conversation.

ST: Could you tell us about your research?

RN: My field of research has varied a lot over the years. It started off with optics and crystallography. Most of my work was theoretical; the experimental component was very small. Then, I joined the Raman Research Institute at Bangalore which had groups doing Astrophysics. So I gradually moved into that by addressing problems related to Optics, Gravitation Dynamics etc. It was a smallish institute with a nice culture where different groups interacted and worked closely.

Then I moved to Pune to be the director of NCRA, which is an observation institute of Radio-Astronomy. The GMRT was just being opened up when I got here in 2000. I must admit that at NCRA, research took up 50% of my time; I had a lot of administrative responsibilities. Here I worked on Gravitation Dynamics and image processing. Having been a little more free after that, I've gone back to work in Optics.

ST: Science has evolved over the years. How would you describe the research scenario in India in comparison with other countries?

RN: The major push in India's research scenario came in after Independence in the form of large scale investments by the government and other countries.

There have been outstanding achievements by many individuals. But in terms of Science as a whole, we have to catch up. But it's going to be hard; other places are not standing still. That said, there definitely has been a lot of progress.

ST: You are currently handling a first year UG course. How would you describe your experience? How different is it compared to interacting with graduate students?

RN: Until now, I have only taught students who at least have a B.Sc I try to

accommodate the topics I pick for this course, but both the students and I need to get used to it. It's both ways. Gradually, one expects the students to become more independent and think things through by themselves before looking for answers in textbooks. I would say my experience with the UG students has been exciting. I've learnt a lot but they should really speak for how it's been for them.



Photo: www.blogger.com

ST: What do you think about the integrated approach to teaching at IISER?

RN: Things were strictly compartmentalised in the past. This interdisciplinary approach has been increasing of late and people with foresight saw this coming many years ago. A lot of exciting research has come because either the same person learnt about two different things or different people with different expertise have worked together. One famous example is Watson and Crick. Of course, if you read the book 'Double Helix' you get a slightly different picture. But the challenge in training is to ensure that we don't lose out on the essentials and still manage to groom students in an interdisciplinary manner. It is an incomplete challenge and we are all struggling with it today. And it's not as though the problems of 'Pure Physics' have gone away. So people should pursue what their interests and abilities lead them to.

ST: What do you think pushed you into Physics research?

RN: I was always interested in Mathematics and Science. All my classmates wanted to do engineering and I always presumed that I would do the same. But someone told me that if you come in colour blind nobody will take you in engineering; some strange reason like you won't be able to read the colour code on a resistor. Maybe it was true then, I don't know.

To me, Maths came first and so I took the PCM combination. Another nice thing was the Science scholarship programmes organised by the government. In summer schools, we would get to meet like-minded people. The collective interactions were quite exciting and I would say a lot of my inspiration came from my own peers who had similar interests.

ST: On a lighter note, what do you do in your free time? What are your hobbies?

RN: I was afraid that question would be asked! (chuckles) I like swimming. I play table tennis. I have started reading detective fiction.

ST: Have you thought of any alternate career if you had not been a physicist?

RN: Not really. Maybe I would have been a swimming coach in the morning, and then teach cycling. I have often done that. I enjoy problem solving and I would often help kids of friends and relatives with the same. So, there would be a fair amount of academic content.

ST: Describe your experiences in academia in two words.

RN: Very privileged.

ST: Advice to young students.

RN: Well, it has to be a balancing act for you people. One doesn't expect you to devote equal amount of time and interest on every single subject. The most important aspect is to cultivate independence. I do see people who have been brought up in this system of competitive exams and they look for a quick fix to a problem using just formulae. There is a lot of fun in figuring out things for oneself, even if it takes a lot more time. This is true for experiments too. The important thing in research is individuality.

Once Smitten, Twice Shy

Lokahith Agasthya

You weren't looking for trouble when you wandered near the classroom. You didn't know there was a class going on, you just walked in, mistaking it for the student room. The lecturer is perplexed and annoyed, while the students, most of whom are more than twice your height, are amused. You don't know what happened and in response, you turn a bright shade of crimson. Your own wavelength. You have just blushed, which refers to an involuntary reddening of the face due to embarrassment or emotional stress, though, it is more often associated with being love-struck, which, for quite a few people, it is almost always the case. Blushing is more than blood simply rushing to the face. It is a complex bio-chemical process. The blushing region is unique, in the sense that it has larger blood vessels per unit volume and that the vessels are wider and closer to the skin. When you're embarrassed, the body releases adrenaline. This hormone acts as a natural stimulant, causing vasodilation to improve blood flow and oxygen. This release of adrenaline is also responsible for the jolt you feel when embarrassed. The veins of the cheek are the only veins that respond to adrenaline. In other regions, only

the capillaries and arteries respond. Blushing can also arise from being drunk or sexually aroused, but only blushing from embarrassment is triggered by the release of adrenaline.

The psychology and the evolutionary origin of blushing are obscure and have been the subject of much speculation. Many experts accept that it is a form of social apology, a way of signalling that you know you have overstepped the line and you are sorry for it. Another conjecture is that blushing, being an external manifestation of the inner emotions, makes the face more interesting. It helps elicit forgiveness in the awkward moment of inappropriate social behaviour, and can also help gain romantic sympathy.

Social intelligence begins to develop at a very young age and continues into early adulthood. Due to a general state of emotional confusion, teenagers are the most frequent blushers while the elderly hardly blush. An alternate theory is that blushing is a manifestation of rage rather than embarrassment. This stems from the NPA (Narcissism, Perfectionism, and Aggression) theory of Personality which hypothesises that these three components combine in different proportions to

lend each individual his/her personality.

The Narcissistic component is a yearning for glory and recognition. When this yearning is publicly undermined, such as during an embarrassing situation, we experience rage leading to a surge of adrenaline that causes blushing.

For the romantically oriented, it should be kept in mind that blushing gives you a genuine advantage over your fellow competitors, if any. In fact, recent research shows that people who blush often make better lovers. Those who blush are instinctively perceived as innocent by others. Regular blushers have been found to be more trustworthy, generous and virtuous than their non-bashful counterparts. It helps to blush while negotiating a business deal or on a date. Unfortunately or fortunately, blushing is involuntary.

The positive social impacts of blushing are only at moderate levels. Extreme blushing can be an indicator of social anxiety. Idiopathic craniofacial erythema is a medical condition in which the sufferer blushes continuously with little or no provocation. Erythrophobia is the fear of blushing. People with erythrophobia are prone to idiopathic craniofacial erythema. Any blush due to embarrassment or stress in such a person is compounded by the fear of the very blush, setting up something of an infinite loop of redness, embarrassment and fear.

Charles Darwin called blushing, the most peculiar and most human of all expressions. While it can seem unwanted in particular situations, the long term benefits of the blush, which include being seen as adhering to social norms, far outweigh any temporary awkwardness.

So, the next time you blush, while you think you are making a fool out of yourself, remember that everyone else finds you innocent, charming, trustworthy and incredibly attractive.

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Photo : www.rebelsociety/

Imprints of the Mind

Harini Suri



Photo : hidesertnaturemuseum.org

Recently there has been this buzz that fingerprints can not only determine your personality traits, but also your genetic characters. But how far is it true? In order to explore this, I went on to read a few 'non-scientific' articles. On this quest, I came across one article that said all of this was true and that people in developed countries have already started harnessing this technology. 'Dermatoglyphics Multiple Intelligence Analysis' is the term. It is a tool that can be used to determine one's innate strengths and skills by studying the fingerprints that are genetically mapped out on our hands and feet during foetal development. It is known that no individual has ever displayed the same fingerprints on two or more digits. Fingerprints are Friction Ridge Skin (FRS) at the end of our fingers (FRS refers to the furrows and ridges spread on our hands to provide us with the friction needed to hold on to things.). The information contained in these fingerprints does not change with age unlike the lines on our palms used by fortune tellers. Fingerprints have become unique identification cards in the world today but the claim is that they are also your unique genetic identification cards. Research dating back to the 18th century has demonstrated that there is a strong correlation between the inheritance of fingerprint patterns and the spacing and

shape of ridges on your hands. However, the identifying ridge features that we use are normally not inheritable, which is the reason for the millions of permutation-combinations there are that give rise to the fingerprints in the world. During foetal development, the formation of FRS is linked with the development of something called volar pads. Volar pads are nothing but the swelling of the connective tissue of the dermis which is derived from the mesoderm during cell division of the zygote. At one particular stage, the development of volar pads stops and they are absorbed back into the hand leading to the formation of wrinkles which later become the ridges on our hands. The spacing and arrangement of ridges are dictated by the geometry and topography of volar pads. But how is all this related to our genes?

The timing of volar pad shrinking and development of ridge patterns are genetically inherited. Once genes have entered the scene, the story becomes much more organised and the chance of inaccuracy is reduced, not considering mutations. But are the fingerprints of every individual a result of mutations? No's the answer. Once the ridges start forming, they get distributed randomly over the surface of your hands. This is not controlled by genes, giving us all a very unique identification feature.

Knowing all this, scientists ventured into studies related to genes that controlled the formation of various patterns on your hands. Their studies claim that these genes play an important role in the development of the child's abilities and intelligence. The analysis of one's fingerprints does not determine one's future, but rather gives an insight into one's intelligence distribution, unique potential, and learning and communication styles. How? According to thousands of research papers and reports by scientists, the human brain is closely related to fingerprint and footprint patterns. The number of brain cells distributed in various parts of the brain determine a person's potential capabilities and personality and is

reflected in the designs of his fingertips. The distribution of neurons in the brain is dependent on inherited genes, which is the reason why there are almost two hundred million neuron endings in our hands. One paper claimed that, the development of the nervous system is related to dermatoglyphics because the convex folds of the surface of the cerebra grow synchronously with dermal ridges and their differentiation takes place early in foetal development. The resulting ridge configurations on each finger tell the story of our genetic history and traits.

DNA mapping has made scientists believe that fingerprints are genes made visible. American doctors discovered a strange case where a baby was born without a brain and also had no fingerprints. With extensive study of this subject and sampling, researchers have also stated that fingerprints can be used to determine congenital diseases and intellectual disorders. It was observed that people with Down's syndrome showed a peculiar fingerprint pattern in certain regions which was unique to these individuals.

With the development of such methods, it is possible to determine what one is good or bad at and also cure diseases at an earlier stage. But how feasible is this? Will this be successful or will it be just another wild goose chase, to be exploited by some, leaving others at a disadvantage

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A Major Salute

Lakshman Teja Narsi

In dreaming of a wonderful nation, we have achieved outstanding success in a wide range of fields by toiling hard for the realisation of this vision.

to the family. A man who had the distinction of ably commanding an entire battalion would have at least wanted basic courtesy for his family. The dis-

there was a lack of collaborative working between various offices, resulting in a huge loss of life. In the Gaya attacks, which were presumably instigated by the Buddhist-Muslim conflicts in Myanmar, tip-offs were received prior to detonation, though in vain.

There have been recent incidents of jawans committing suicide due to extreme orders from their superiors.

The suicide rate in the Armed Forces is around 126 per year, which is high compared to most other government organisations. Disparities in the treatment rendered to women and men by army officials have not yet been curbed.

These decrease the morale of the soldiers, leading to more takers for VRS (Voluntary Retirement Scheme). Policies such as not admitting girls into NDA, the elite institute for defence training in the country, should also be thought about. The modernisation of the weapons provided to the lower levels of the army has stagnated, leading to an increase in the causality rate.

Scams in the defence sector of India amount to more than the budget for Defence, writes a popular Defence forum, indicating the plight of defence.

India has the largest voluntary organisation of forces without conscription. Our involvement in UN peacekeeping missions such as the Sudan war, the Somali infringement and disseminating terror attacks depicts the valour of our forces. It is to be kept in mind that a soldier can become a great leader, but a politician can never become a soldier. Citizens are also responsible for the laws in defence, because they tolerate all these scams. A soldier always thinks of the citizens, but is the converse also true? The famous slogan of one of the greatest exemplary leaders, LB Shastri, *Jai jawan, Jai kisan* may also imply that every denizen should become a soldier in defending his country and a farmer in cultivating and preserving his farm. Soldiers have given you the best thing in the world - freedom! Be thankful to them for it.



Efforts in strengthening the defence of the country have gathered tremendous pace. India has been procuring new weaponry from foreign countries and has been preparing indigenous arms as well. But should this be a cause of concern? A weapon is just a piece of junk, unless handled by a soldier. However, opinions as to the recognition of services rendered by the army vary. The attitude of our bureaucrats towards the army has always been controversial.

Their response to Field Marshal Sam Manekshaw's death was hugely opposed by the masses. No one from the Ministry of Defence attended FM Sam Manekshaw's funeral, nor did they explain their absence. Many of those close to Sam describe his bravery and also his dissatisfaction with the government.

Another such example is that of V.S Achyutanandan's remarks on Major Sandeep Unnikrishnan's family. The Chief Minister of a state calling a martyr's family unworthy of a dog's visit triggered great criticism. But no one from the CM's office ever apologised

plays of bravery on the part of soldiers are never ending but we fail to recognise and repay them for it. Even though we claim to have the third largest defence establishment and are seventh in terms of defence expenditure, we still lag in terms of compensating the families of martyrs. Just granting an ex-gratia does not console them, a sense of gratitude should also accompany it.

Scams have also become common in recent times. The jeep scam in 1948 and the recent chopper scam are prime examples of the general attitude of defence officials in India. All these scams involve high profile politicians and higher-order officials. The Bofors scam amounting to around ₹1500 crore was the biggest scam followed by the Adarsh housing scam. Yet, not a single person mentioned on the charge sheet is behind bars.

By ignoring the intelligence forewarnings issued by RAW and other agencies, the Home Ministry created a major hitch in deterring intrusions. Despite receiving prior information about the recent Dilshuknagar blasts,

Tutorials form a prominent part of every student's life here at IISER. BS-MS students have dedicated tutorial time slots for most major subjects, and are expected to attend every class—this marked attendance goes towards their overall attendance for that subject. Ph.D students are responsible for teaching these classes, correcting submitted homework and tests, and being approachable intermediaries between the course coordinator and the students. Each course they 'TA' for carries credits, and they are required to be a part of every such course as teaching assistants before their period of study is over.

We decided to talk to fellow students and find out what their opinions on this rather sidelined aspect of IISER's coursework are, and we found that there was a consensus on the usefulness (or lack thereof) of the tutorial concept, both among the TAs and among the targets of the tutorials—the undergraduates.

The Ph.D students we spoke to had a lot to say. Some were enthusiastic about the courses they had to supervise and said they received a lot of benefits from having to teach BS-MS students. Several agreed that they got the chance to recall and reaffirm their own concepts and logic by having them tested (sometimes confused) by people with a lot (a lot!) of questions. They have to be perfectly sure that they are saying the right things in a facile manner in each class, since the words they speak would (unfortunately, in some respects) be taken as the unalterable truth by some of their students.

This entails careful preparation on their part, and that makes sure they check the soundness of their own knowledge. Others mentioned that interacting and speaking freely about their fields of interest with students younger than themselves was refreshing and that it helps them build people skills.

BS-MS students were not very happy about the way these tutorials are conducted here at IISER. They felt that the way these classes are held depends too much on the individual who ends up as their TA. They felt that tutorials, on the whole, lack structure and that a tutorial slot could either be extremely valuable and thought-provoking, or mind-numbingly dull. They also point-

ed out that some professors do away with tutorial time slots and instead usurp them to hold extra lectures. The general notion was that tutorials are not used or framed well, bringing down their value. Even the involvement of course coordinators in the proceedings of the tutorial varies greatly from course to course, with some present for each session and others completely out of the picture.

Undergraduates agreed, however, that a tutorial that is relevant to its main course, is interactive, and allows them to practice solving questions pertaining to the material done in class is very handy, especially for trickier concepts and ideas. They also thought that it is convenient to have someone closer to their

There is a difference between the tutorial's fundamental and realised niches, if you will.

own age (and thus less intimidating) to approach and discuss problems and ideas with, so that they needn't disturb their professors with very trivial queries.

As is, the TAs concurred with, and many told us that they believed approachability and being friendly was important so that students did not feel shy about going to them with doubts. They also pointed out that the tendency to back away from asking questions in class was one of the things that the very concept of the tutorial was attempting to counter.

Certain Ph.D students welcomed the work they had to do as TAs as a pleasant distraction from the workload and occasional tedium their theses presented them with. In the same breath, they told us that this pleasantness morphed into frustration if they were faced with a deadline or had tutorial-related work interfering with their work schedule or plans. Some mentioned that correcting the constant barrage of exam book-

lets and assignments that ended up on their work tables was also cumbersome.

They also admitted that it was a valuable part of the teaching experience and that they were learning several things about student behaviour from their side of the fence that would help them with teaching careers in the future.

While everybody recognised the potential of the tutorial to help students by acting as a forum for questions and the introduction of new ideas, many expressed their dissatisfaction with the actual state of the tutorial time slot. There is a difference between the tutorial's fundamental and realised niches, if you will. They also pointed out that some individual TAs, assured of the credits the course would give them, come to class unprepared and uninterested, which wastes everyone's time. Some were worried that their behaviour towards TAs would affect the way their test papers were graded, though nobody, fortunately, could think of any instance where such biased correction happened. TAs, for their part, were disappointed that students do not utilise tutorial slots effectively—they are not forthcoming in class with thoughts or questions, and are quite often obstreperous and unresponsive to the things they say. Many students bunk tutorial sessions altogether, and others treat it like a joke. Assignments are usually not done or submitted.

We think that tutorials, like our fellow students told us, are indeed useful as a part of a course. However, we also think that the way they are handled on an average should be improved, mainly through feedback given to teaching assistants and professors by undergraduates, and vice versa. We believe that this should be done not just once in a semester, a mere final exam, but all through it. Perhaps there could be a suggestion box of sorts for students to anonymously present their ideas to their teachers. TAs could also tell the class what they expect and how things are going relative to those expectations. The malleability of the tutorial is both its weakness and its strength and perhaps a more democratic approach to how they are shaped and conducted would help everyone involved get the most out of them.

All that Jazz

Paranoia

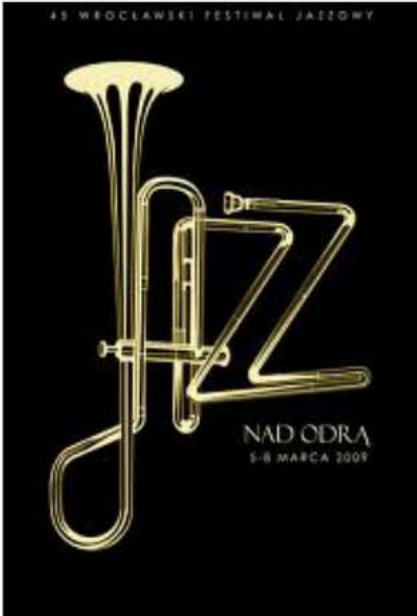


Photo : www.designinspiration.net

Louis Armstrong said, If you have to ask what it is, you'll never know. Nevertheless, people have been curious about this genre of music- jazz, since the second decade of the 20th century.

The exact origins of this kind of music remain elusive. It is thought to have developed from a mixture of call and response of the plantation slave workers, the beat of ragtime syncopation, the driving marches and sounds of brass bands, and the deep growl of the blues.

In February 1917, the Original Dixieland Jazz Band stepped into a studio in NY to record the first ever jazz recording. With their songs Livery Stable Blues and Dixie Jazz Band One Step they re-defined jazz music. Since then with artists like Louis Armstrong and upcoming bands like Koop, this genre is always under renovation. Currently, jazz is defined as a type

of American music characterised by syncopated rhythms, polyphonic ensemble playing, varying degrees of improvisation, and often deliberate distortion of pitch and timbre.

Experiencing different styles of jazz is truly a daunting task, but the rewards are great. The more you listen to different styles of jazz, be it contemporary, mainstream, smooth, avant-garde, Latin or fusion the more similarities you will find amongst them. Its influence can be felt in rock, pop, African, Latin and even Indian music.

As pianist Thelonious Monk said, Jazz and freedom go hand in hand. It explains it. There isn't any more to add to it. If I do add to it, it gets complicated. That's something for you to think about. You think about it and dig it. You dig it. There is lots for all of us to dig.

India after Gandhi

Siddhartha Sohoni

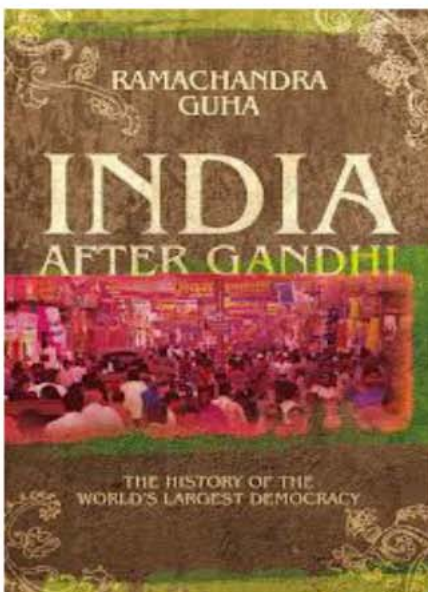


Photo : www.kickass.to/

Few books have been written about the history of India after Gandhi. Most colossal textbooks of History that the country has produced end their tale at 15th August 1947 or 30th January 1948. Very few venture up to 1952, the year of Nehru's election. Practically none dare to take the story from there and wind through the 60s, 70s and 80s. Hence, when you look at the 771 page ordeal titled India after Gandhi, you have second thoughts about your decision to read it.

For the sake of orthodox historians, the author Ramachandra Guha begins on the same old familiar note- Partition, Nehru-Jinnah, Patel and the princely states, and so on. However, before we know it, he starts linking these events to the period post-1952. One example is the beautifully intertwined story of the princely states and the states of the Union of India.

One of the early chapters is devoted to the general elections of 1952. Guha, rather romantically, calls it the biggest gamble in world history. Nehru's seven-

teen year reign is elaborately detailed. Guha, who has been found guilty of having a soft corner for Nehru, looks back at those seventeen years rather benevolently. In general however, Guha adopts his famous non-opinionated style of writing. Only on one or two occasions, in the case of Mrs. Gandhi or Ambedkar, does he resort to open criticism. Indeed, the most striking aspect of this book is that Guha is reporting, not discussing.

A significant chunk of the book is devoted to popular culture and proudly deviates from country politics. Guha merrily discusses Tendulkar and M.S. Subbulakshmi and the All India Radio and attaches as much importance to them as to Mrs. Gandhi.

For a book having received the Book of the Year award from the Economist and the Wall Street Journal, a very high standard of literature and language has to be assumed, because when Guha spins the yarn of his stories, history takes on a new dimension.

Journalism

Yellow Fever

Sahana Srivathsa

It's a pleasant morning, there's a slight nip in the air, and you grab a steaming cup of tea, find a comfortable chair, and settle down, unfolding the crisp newspaper, when the headlines scream out the news of a terrorist attack which resulted in a massive number of casualties. Shocked out of your reverie, you rapidly read through the article as a sense of helplessness and anger seeps through you. The next few days are

filled with reports from the police and government officials, interviews with the families of the victims and speculation about the progress of the investigation by completely irrelevant people. In a week or two, the media seems to have completely forgotten about the attack, and has moved on to report the upcoming star celebrity nuptials or world cup finals. You'd be hard pressed to find the slightest mention of it in any newspaper. Present day journalism exists merely to entertain the masses, with mostly speculation, while amending the hard truth to sensationalise and create the most outrageous package possible, ignoring the very essence of journalism.

A brief detour into the history of journalism leads one to the 14th century where Italian and German businessmen circulated handwritten chronicles of important events amongst others of their standing. However, the first successful newspaper officially recognised was the English daily, the Daily Courant, which was published from 1702 to 1735. Since the beginning of the seventeenth century however, journalists and editors became avant-garde leaders in revolutions and revolts for freedom worldwide. They were then anarchists, endangering their lives to ensure the continuation of the freedom movement.

The term Freedom of the Press was coined during these tumultuous times. Media became the most sure-fire method of enabling the rapid congregation of the masses, united against a common ruler, from Jean-Paul Marat in France

to Benjamin Franklin in the Colonial America to Raja Ram Mohan Roy with Bangadoot and Tilak with Kesari. Since the advent of the twentieth century however, journalism underwent a minor revolution with the popularisation of democracy. In the words of the acclaimed writer and two time winner of the Pulitzer Prize (an award for journalism) Walter Lippmann, Journalism's role at the time was to act as a mediator between the public and policy making elites. When elites spoke, journalists listened and recorded the information, distilled it, and passed it on to the public for their consumption. In principle, this is to some extent the same principle followed to this day.

By definition, journalism is a method of inquiry and literary style which is used in social and cultural representation whose integrity is based on the principles of truth, accuracy and factual knowledge, regardless of any personal opinions. However in India, where all the major newspapers have affiliations with one political party or another, it is simply, just quite impossible for the public to arrive at the real facts of any given situation, since the truth is conveniently modified by everyone to showcase their respective collaborators in the best light possible. Moreover, only news which is expected to generate immense interest amongst the general public is given importance and is related in a fashion that is as sordid and obscene as possible, which unfortunately a sizable section of the population just laps up quietly, without a squeak. I suppose in comparison to countries like China, where all forms of media are controlled by the government, and Freedom of the Press is an alien concept, the journalists in our country can be termed as harbingers of the truth, though mildly foolish in their demeanour with misplaced enthusiasm. Unfortunately tabloids and yellow journalism constitute a highly distasteful aspect which unfortunately can't be

overlooked. There is a total disregard for any factual matter whatsoever and eye-catching headlines and exaggerations are the norm. There is a total lack of any ethics and generally it is regarded as 'trash' by the general public. However, its deadly potential to devastate any individual's life or public image has made the paparazzi some of the most notoriously avoided people. The expansion in terms of the variety of columns is certainly beneficial with vast and veritable cultural interests and tastes flowing around the globe. In this sense, the media has certainly unified the world culturally and socially creating by the notion of global awareness.

The rapidly deteriorating standards of Indian media and journalism has raised a cry that has been echoing throughout the country for nearly a decade now, however despite all their shortcomings, it is vital to have some knowledge, however distorted, as to the state of affairs worldwide. Moreover, after being faced with the daunting task of filling 12 pages every issue with relevant and interesting news, my respect (and sympathy to some extent) towards the media has increased. This entire account on journalism was written while in retrospect of Sentience as the college newsletter.

The purpose of this was not to represent the viewpoint of the Sentience team as a whole or set a direction to journalism at IISER, but merely to air, my admittedly skewed, views on the art of journalism as an editor and novice journalist (though I may be stretching things a little here). It can be aptly summed over in the words of Rebecca West, Journalism: An ability to meet the challenge of filling the space.

And clearly I didn't manage to!

⌘ pr e s s i o n

I, Director

Revati Mandage

Yes, it really is.

It is an amazing experience to be a director.

ere, you are God! e day begins when you decide, it ends when you want.

e rising and the setting of the sun are in your hands. A er all you are the only one who says, Lights, camera, and action!

You are the Creator. You are the Destroyer. Everyone in this world is at your mercy. Your will is their will. Your dream is their dream. And your word- Yes, your word!

So many pairs of ears eagerly await to absorb your words. Your people will be alert to receive your sermons because they will be spoken only once. If it is missed, it is missed; if it is gone, it is gone. And no one dares to ask you again. Who would want to suffer the intense wrath of the holy, supreme power - the one and only God? With your orders, the day begins. A hell of a lot has to be done. A er all, you are creating a whole new world! Your actors, whom you call talents (because supposedly they possess some talent), your camera-persons, your light people, sound people, and everyone else, buzz around, setting up the lights, cameras, sound systems. Highly energised! But hey, remember you are God! And they remember it too (how can they possibly forget?). God has the nal say in it. A er all, God creates the world, right? So, how to go about it? What to do? Which position? What angle? Where to start?

O dearest God, help us! We are thy children, how shall we do it?

Director, O Director

And there you are-

Here I am...It's just me and you, Tonight, we make our dreams come true!

Slowly and steadily, the world starts

taking shape. As it goes on, the demands for you increases. Your utmost attention is needed at every stage, every moment. ings run smoothly, but unexpected hurdles tend to show up. But you have to learn to deal with everything, because you are creating the world. You have to listen to everyone, their problems, opinions, suggestions.

Wow! Now the matter is in your hands. You realise, Aah, I am in charge, so why not show o ? And once this thought creeps into your mind, the real fun begins. For each of their suggestions, you think deeply. And then you realise how terrible the idea is. But you continue pretending to think deeply. A er 'deep and prolonged' thinking, you decide to utter a few words. You open your mouth and at the same time you look at them. All you nd are those expectant eyes! Aha, why not stretch it a bit more, this opportunity will not come once again. ey are so eager, and all you utter is- No, that won't do, wait a moment. ey are getting impatient. Stretch it a bit more. Stress is building in the air. Still a little more. Oh, it's getting out of control, and there you say- okay. Let's do it. We'll take that shot, this frame that position, etc.

And nally yes, here it is the real fun. You utter the words. Without uttering a single word, without refusing or doubting you, they start doing what you want!

Ha, ha. Here I am, 'this' is me!

So your journey goes on and on. Awesome, joyous and full of fun. Now the day has to end. You utter your - nal words the words that make your people relieved for sure- Pack up.

Once this nal order is given, you reluctantly keep your temporary 'Godliness' onto that 'Director's chair' and return to the normal world, eagerly looking forward to the next 'unpacking'!

Foodie Corner

Darshini Ravishankar

Fresc Co is an Italian-Mediterranean restaurant located at Amanora Park (an extremely fancy mall/township) in Hadapsar that o ers a veritable and simply fantastic bu et. It is priced the same, at Rs. 495 plus tax, for both vegetarians and non-vegetarians. As we walked in, a group of seventeen, to celebrate the end of exams, we admired the d cor. It was airy with blue walls, green glass ceiling lamps, and white linen tablecloths. It was slightly dim everywhere except at the bu et, on which spotlights were focussed. It was like the food was beckoning us to it.

And what food it was! As far as we could tell, it was authentic. ere was unlimited olive oil and Tabasco sauce and a sumptuous, enormous dessert bar. I'd like to list out everything we ate, but that would take me three times the space I have available for this column, so I'll content myself by saying there was pizza, two kinds of pasta, twin appetiser and main course bu et tables - they were behemoths. I particularly enjoyed the hummus and baked potato and cheese. Once we nished, we simply could not walk. e price was worth it and most of us skipped breakfast the next day. I urge everybody, everybody, to go to Fresc Co- it is, there's no other way to put it- awesome.

Contact:

Address : Fresc Co, Amanora Park town, Hadapsar, Pune

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