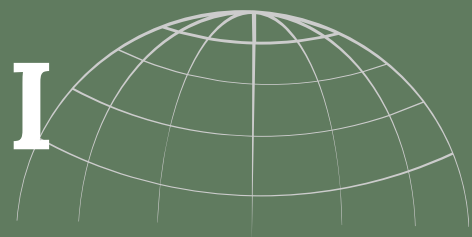


November 16 2023 | Issue 1 | CHEMUN CHATTER XVII

PRE-CONFERENCE

THE CHEMUN CHATTER XVII



CHEMUN XVII

Balancing Power Dynamics

NOVEMBER 17-19, 2023

IN THIS ISSUE...

- Welcome to CHEMUN XVII: Balancing Power Dynamics
- Black Holes
- The Last of Us
- The Art of Procrastination
- Koyambedu Market
- International Day at AISC
- The Pendulum of Power



Welcome to CHEMUN XVII: Balancing Power Dynamics

By the CHEMUN Secretariat

Throughout history, power imbalances have resulted in discrimination, oppression, and war, making an equitable system a necessity. Power dynamics still exist in all aspects of our life, from low-scale local issues to global politics. Regardless of the scale, however, at the heart of most power imbalances is a need for control, and often, the people or groups that hold this control constantly change. In fact, power itself manifests in a variety of forms, including social, economic, or political power. Often, if we simply focus on addressing the balance of power in a single form, the others exacerbate. Or, perhaps, are there ways to improve all three simultaneously?

On a global scale, we can find abundant examples of inequality within economic power. Consider, for example, climate change and its effects on developed countries in contrast to developing countries. Over the last hundred years, developed countries built their economic power through industrialization and the exploitation of resources. As a result, climate change rapidly increased, and now developing countries are suffering the consequences disproportionately. While developed countries had a chance to develop economically during the 19th and 20th century with little environmental concern, developing countries must develop with the additional burden of managing climate change. As a result, the economic imbalance continues to grow with developing countries at a severe disadvantage.

From a social perspective, many imbalances in power stem from internal conflicts within a nation. Almost all societies consist of groups hoping to gain greater influence over others. Historically, this imbalance has incited conflicts that have reached a national scale. Most notably, anti-Semitism as a prelude to World War II provides an example of a group assuming greater authority over others. This growing prejudice contributed significantly to the Holocaust, further increasing the atrocities of the world war. These social imbalances can therefore serve as a major factor toward greater, large-scale conflicts.

Beyond social and economic aspects, this theme also presents itself in the political relationship between nations. In global politics, most of the nations in the world are satellites to a few powerful countries. Political power often overshadows the autonomy of weaker nations, forcing them to align their interests with those of more powerful nations. These powerful countries shape policies and make decisions that primarily reflect the country's own interest, regardless of the impacts on other nations — economic exploitation, environmental degradation, and human rights abuses being just a few examples. This leaves many countries unable to chart their own path.

With these examples in mind, we quickly realize the difficulties in balancing power dynamics, especially since once entrenched, they become even more difficult to tackle. How can we build solutions or frameworks to foster political, social, and economic equality? How do we make progress in one area without regressing in the others? What incentives can be used to effect change given those who have power have the least interest in changing the balance?

Contemplating these questions and others, at CHEMUN XVII, delegates and student officers enjoy an opportunity to undergo debate and discourse on imperative issues. It is our hope that this conference inspires its participants to make a mark on their communities, today's global issues, and ultimately, our future.

Black Holes

Aparna Anand

When you think of astrophysics, or anything in space that is mysterious and creepy, any person's mind would at some point cross the topic of black holes, one of the most popular concepts in the scientific community, partly due to the incredible properties they exhibit, one of those being that they have a gravitational pull so strong that they absorb light itself. So for those interested in learning about these natural phenomena and how they are created, here are the basics that we know and have discovered on black holes.

The concept behind black holes, the theory of an object with a gravitational pull so strong that light cannot escape it, was first proposed by John Mitchell, a Cambridge scientist, in the 18th century. His thinking stemmed from the newly discovered understanding that light had a finite speed and escape velocity (the minimum velocity an object must achieve to escape the gravitational sphere it is held in) and he wondered if an object could have an escape velocity (or in other words, a gravitational pull) strong enough to overcome the finite speed of light. He assumed the object to be a star as they are the most suitable candidate to reach the minimum requirement of having a mass large enough to create such an escape velocity.

After Mitchell, there were many other scientists who built on his concept of "dark stars" (a name not far off from what we call them today), one of them being Karl Swartzchild who built on Mitchell's idea and began investigating how exactly black holes are created. He coined the term "Swartzchild radius" a name for the tiny amount of space an object's mass must be compressed into for its density to be so great that it would drastically increase its gravitational pull.

The point that it collapses into, would be the black hole's singularity. The other thing to note about a black hole's physical properties is that it not only bends light and gravity but also time. To understand that, we could have to imagine watching someone jump into a black hole. You wouldn't see that person get quickly sucked into the hole, but instead, watch the person's approach get slower and slower until they hit a point called the event horizon, where light can no longer escape. You would then see that person frozen in space, where the light reflecting off their body becomes red-shifted until they fade away.

Now let's imagine you are the person jumping into the black hole. For you, everything would seem fairly normal, and as you continue traveling into the black hole, everything in space would become compressed behind you, until you are surrounded by darkness on all sides and the entire universe would look like a circular window. Although it might sound fairly uncomfortable there, it would take a while for you to actually feel pain. How? As you go closer to the black hole's singularity, the difference between the gravitational pull on the part of your body closer to the singularity and the rest of your body would be different, meaning that you would actually slowly be stretched out, and use the scientific term, this process is called "spaghettification".

Now what would happen when you reached the singularity, scientists don't really know, and it's quite likely that we won't be finding out anytime soon, as sending in anything to study the inside of a black hole (camera or human being) will resemble something too much like pasta for us to gain any useful information.

Could *The Last of Us* become a Reality?

Pettula Jeyakumar



Most people who watched the post-apocalyptic TV Show ‘The Last of Us’ remember the prominent opening with the talk show scene: “True, fungi cannot survive if its host's internal temperature is over 94 degrees and currently there are no reasons for fungi to evolve to be able to withstand higher temperatures but what if that were to change? What if for instance, the world were to get slightly warmer?” Foreshadowing.

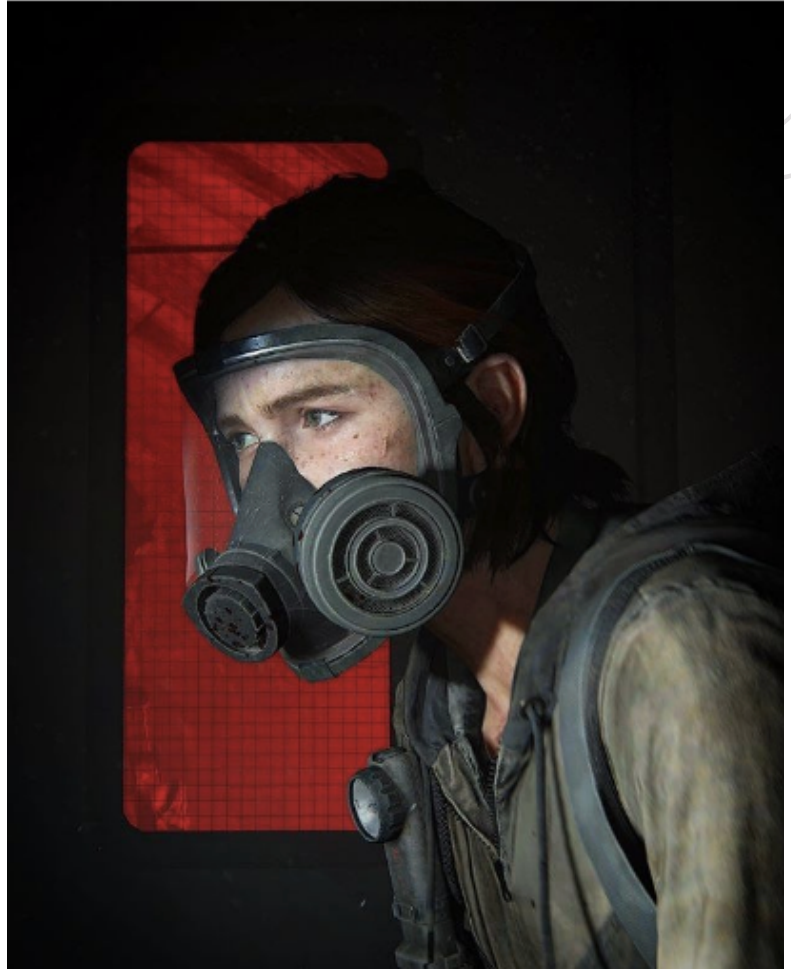
Well, the world is getting warmer, roughly 0.20°C every decade since 1975 - around the time the opening scene was set. So does this mean that our harmless fungi that make our penicillin, beer, bread, tea and more could evolve against the test of warm hostile conditions and eventually infect our minds?

Cordyceps, or *Ophiocordyceps unilateralis* is the name of the fungus that wreaks havoc on Joel and Elle on screen, but it is an actual zombie-ant fungus in real life as well. With various dangerous strains, cordyceps can infect ants by latching onto their bodies off of the forest floors and germinating (spreading thread-like branches that we see in *The Last of Us* intro) into the ant's exoskeleton. The fungus would manipulate and control the ant's behaviour, feed on its host for nutrients but prevent decomposition; a walking, brainless corpse, a zombie. Only when the fungus bursts through the host's head with spores onto the forest floor does it dispose of the ant, repeating the cycle all over again.

In the game developed by Naughty Dog and Iron Galaxy, this is how the Cordyceps spread, the characters have to wear gas masks to prevent exposure. While the TV show, to ascertain more audience-character intimacy, opted out of face covering to allow the actors' facial expressions to be seen.

Germination in the yeast factories in Indonesia was the root cause in the TV show, the infected fungus already ended up on grocery store shelves in the US after a couple of days. But this jump from insects to people is highly implausible, says Scott Roberts MD, Yale School of

Medicine. "There are millions of different fungal and mould species out in nature that don't cause any sort of infection in humans, and this is one of them," he explains. "A Cordyceps that infects one species of ant cannot even infect other species of ants."



Indeed, fungi cannot survive in temperatures over 37°C, bordering on human's internal temperature. However, it is unlikely to spread from person-to-person like viruses that are built exactly for that, rather than spreading from wounds or spores. Additionally, the likelihood that we could be harmed from fungal ingestion is also low, the heat or low pH in our stomach would surely kill it. "There are only a rare handful that concern me. This doesn't include Cordyceps," says Roberts. Though fungi do have mind-altering effects, like psilocybin and LSD, the risk is very low.

On the other hand, new fungus-like *Candida auris* does spread person-to-person. Only to the immune-compromised lot though. However, it highlights that fungal disease is on the rise because of increasing global temperature. So the short answer is: not in the near future. Though "The Last of Us" made a handful of us cry, we can save our tears for the next, next generation about any apocalyptic pandemics.

The Art of Procrastination: How to Master the Fine Art of Doing Nothing

Thara Reddy

If there is one thing that I know about everyone reading this essay right now is that y'all are a bunch of procrastinators. You can sit there with your face in a twist and disagree with me as much as you want to as you snack your peanuts away, but it's true. We've all been there, and so have you. With your body splayed on the couch and snacking on a packet of chips while watching that very Netflix episode you said would be your "last one". The clock ticks away as you scroll on Instagram, hours way past your bedtime your legs are shaking under the desk and biting your nails away till you smell the faint blood dripping. Typing away anxiously while taking a pause each minute to figure out what your next train of thought is going to be. Thinking to yourself "Why didn't I just do all this when I actually had the time?" Because you're an idiot with no sense of time. More professionally you're a procrastinator. And I know about this because I've been there way too many times so here's a guide to being a professional procrastinator.

First, you want to start by receiving an assignment from your teacher, put it into your bag and forget about it until the night before the submission deadline. Don't panic just yet because you want to save that for later. Collecting all your materials, you want to sit down at your desk with motivation and purpose. Light your candles, wear your headphones and put on a playlist that will end up distracting you in about ten minutes. Then you search through schoology to figure out what your homework is. Convince yourself that you can do this and just pull an all-nighter. A notification pops up on your phone, you tell yourself it must be important and five minutes later you're scrolling

through Pinterest making boards for future inspiration. “OMG that’s such a pretty bag, saved. Oh crap, I have to focus on my work. Ok starting now I am going to focus for sure. Ooo, is that a vintage skirt?” You will soon find yourself bobbing your head to music and the pen drops from your hand. Oh god, the rhythms got you now. You’re going to be popping your body while singing your heart out. You hear a bang and it’s your sibling telling you to shut up and that your singing sucks. Whatever, you have decided you’re just going to do your work. I mean only after you watch an episode of Bridgerton, of course.

You abandon your desk and shift to the bed, letting your body sink into the sheets putting on your headphones and clicking on the exciting episode of Bridgerton. God, isn’t Anthony just so dreamy? Omg look at Kate’s skin, it’s glowing. No way, he did not just say that. Yeah sure buddy, look at the time. Your eyes widen and your heart starts pounding. It’s WAY past the time you promised that you would spend studying. You’ll want to get up immediately, but the sheets are so comfortable that you can feel your eyes start drooping. Maybe you can just work on it tomorrow in the morning? Yes, that’s what you’re going to do. Wake up at 6 in the morning and attempt to finish the homework you were supposed to do three weeks ago. You’re going to wake up snooze the alarm and end up late to class. You’re going to run in, all sweaty and breathy, and turn in crap. A week later your teacher hands back the paper, and you anxiously turn it around. DUN DUN DUN surprise surprise you got a 4. But that’s OK, because you’re going to promise yourself that you won’t ever do this again. You will complete your work on time and get the best grades. (Spoiler alert: you won’t)

Koyambedu Market

Felina Lange

Chennai's Koyambedu market is one of the biggest markets for perishable goods in Asia, selling countless vegetables, fruits and flowers. With more than 3000 stands, the Koyambedu market covers an impressive 295 acres. There are four allocated blocks in the market; two for vegetables, one for fruits and another for flowers. In 2015, an additional block was created for the trade of food grains, now consisting of over 500 stalls.



Upon visiting the market smells of all kinds hit you as a wave. Fresh roses, spices, jackfruits. You are in the middle of the hustle and bustle. Stand owners yelling out their prices, trucks coming with new deliveries. Every now and then, cows and buffalos are grazing on leftover fruits, dogs napping in cool corners.

It feels as if this is the heart of Chennai, and all of the city is gathered here.

During the lonesome Covid-19 pandemic, Koyambedu was one of the biggest virus hot-spots in Chennai. The thousands of people that visited the market daily, made an efficient way for the virus to spread. The market was temporarily shut down to avoid any further outbreaks.

After being closed for several months, Koyambedu is up and running again, being even livelier and more colourful than ever.



International Day at AISC!

Karmah Elmahdy

AISC is a school that prides itself on its rich diversity and strong sense of unity among its members. At AISC, we embrace and celebrate the multitude of cultures, backgrounds, and identities that make up our vibrant community. One of the most cherished occasions on our school calendar are the UN Days, a series of days that encapsulates our commitment to unity amid diversity. It is a powerful symbol of the values we hold dear: inclusivity, understanding, and the appreciation of different cultures and backgrounds.

On this day, every individual member of our community has the opportunity to stand tall and proudly share their unique identity with the rest of the school. By waving a flag on our stage, you represent that country and all its history. This celebration goes beyond the borders of our school community; it extends to our connections with other communities worldwide. UN Day is not just a mere assembly; it's a grand celebration. Along with a poem of peace, a video of unity, and a speech from our new head of school,

Karan, Model United Nations Secretary General, gave an eye-opening speech, reminding us to be mindful of our responsibilities as members of this community and this ever-changing global world. This event, with its powerful proclamations and joyful moments on and off stage, serves as a beacon of hope, reminding us of the power of unity in an increasingly interconnected world.

International day, the following day is a day when we come together as a school to share our personal journeys, no matter how big or small they may be. This day is a momentous occasion, eagerly anticipated by our students, staff, and families alike. It's a day filled with music, dance, food, and stories that bring us closer together. It's an occasion to speak the stories of our origins, customs, and traditions, allowing everyone to gain a deeper understanding of our school community. Through this celebration, we foster a sense of unity, tolerance, and respect that transcends borders and promotes a more harmonious world. At AISC, International Day serves as a reminder of our shared humanity and the strength that comes from embracing diversity. It's a day of learning, sharing, and growing together as a community, leaving lasting memories and deepening our sense of belonging to this school and the global community it represents. It's a day when the aroma of global cuisine fills the air, music notes from around the world populate our ears, and the colorful flags of various cultures adorn our halls. It's a day when we come together, not only to celebrate our differences but also to recognize the common bonds that unite us.



The Pendulum of Power

Shania Penker

Yin and Yang, Big and Small
we all coexist
yet power puts us in a thrall—

going to one or none at all,
power brings forth a bloody brawl.

As a rollercoaster, fluctuating in height,
power is used to fight.

So what say we do as power is tossed left and
right;

When all we can do is wait for the light—

with one winning and one losing, we start to see
a break,
until the fight begins again to our mistake.

Once again, the battle emerges,
as the struggle for power surges,
The dispute reaches its peak,
leaving the future bleak.



Through this, there is a theme—

like a crown held in high esteem,
power brings in a new regime.

Supremacy sets the rules,
as those under are mere tools,

When will the fighting stop and crown be
thrown,
as we are ready and waiting for peace to become
known?

in this brawl, resistance is queer,
yet we all seek for a frontier.

Looking up, sovereignty fills the air
as the crown is taken without a care.

In chaos, it's lifted high,
as those under are left to die.

power has a theme—
power goes to the extreme,
favouring the strong and discarding the weak,
history is left to critique.

Word Search CHEMUN XVII 2023

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E	H	I	S	T	O	R	I	C	A	L	S	E	T
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- ADVISORY
- ECOSOC
- REFUGEE
- POWER
- SECURITY
- LOBBY
- CHENNAI
- DELEGATE
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