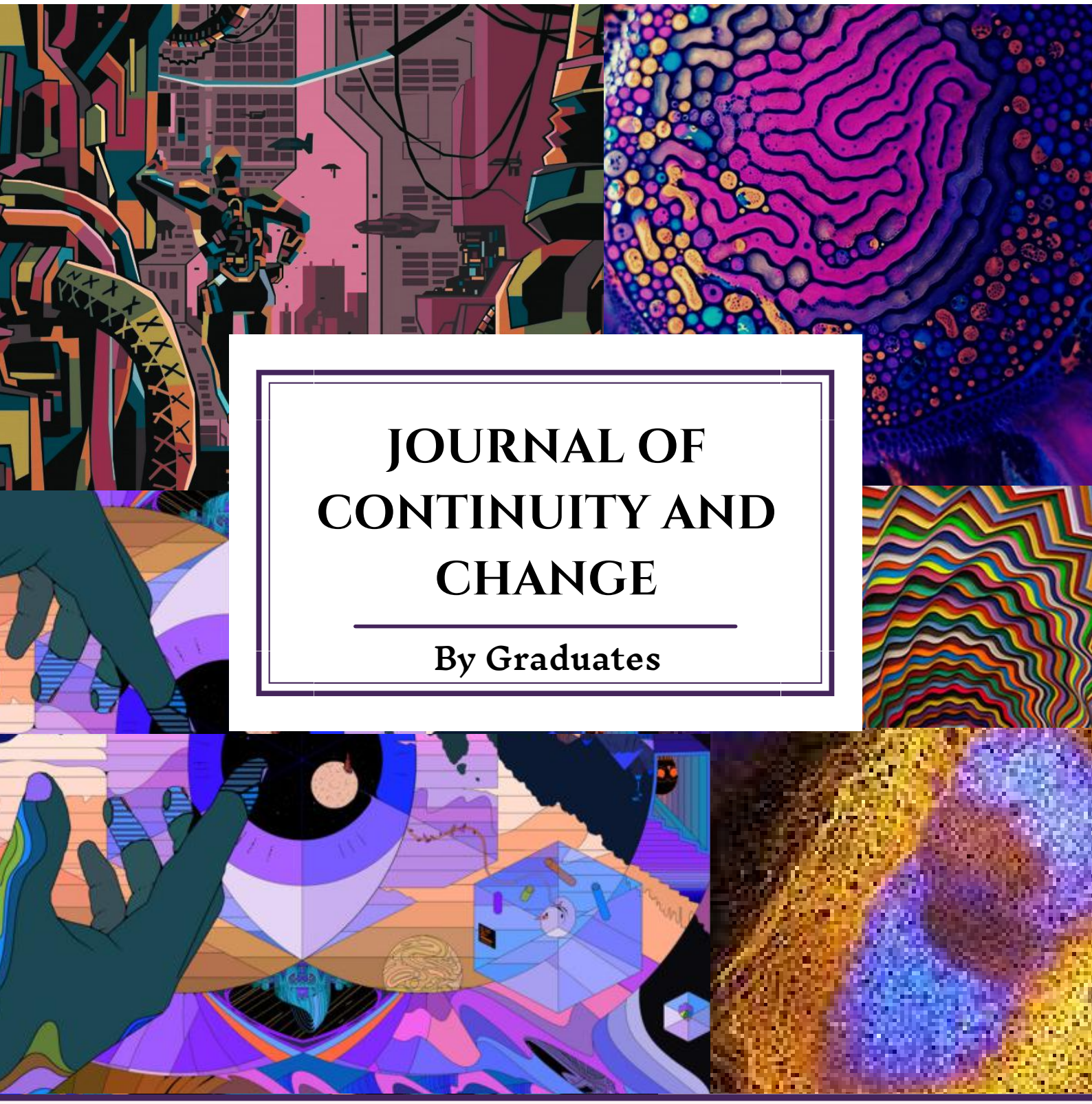
Volume:1 Issue:8 (Feb, 2022)

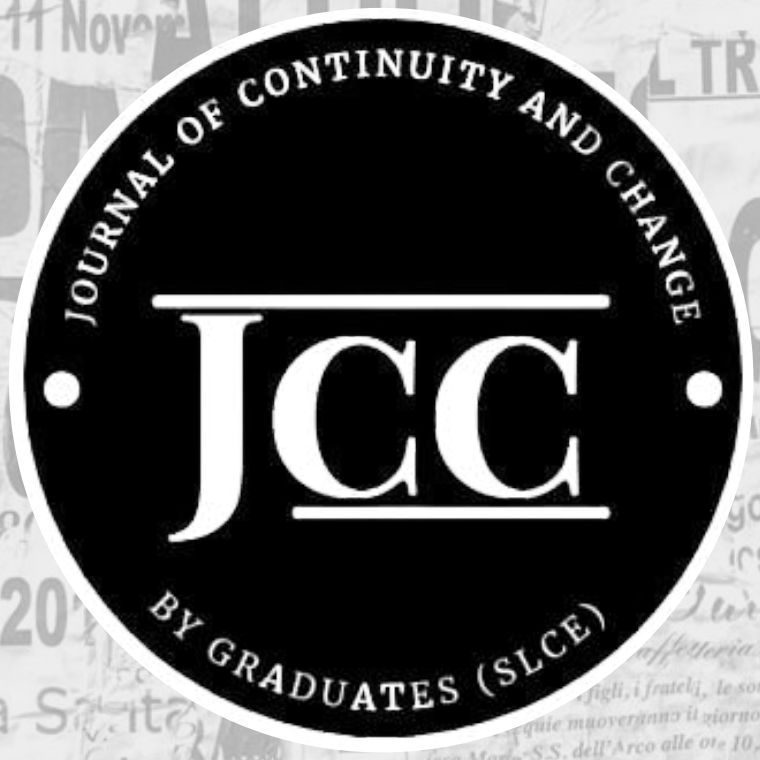


JOURNAL OF CONTINUITY AND CHANGE

By Graduates

SCIENCE SPLASH

EIGHTH EDITION



VOLUME: 1 | ISSUE: 8

FEBRUARY, 2022
(EIGHTH EDITION)

Journal of Continuity and Change

- By Graduates

जर्नल ऑफ़ कॉन्टिनुइटी एंड चेंज

- बाय ग्रेजुएट्स

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THEME

"SCIENCE SPLASH"

JCC

JOURNAL OF CONTINUITY AND CHANGE
FEBRUARY 2022, (SCIENCE SPLASH)

"JOURNAL OF CONTINUITY AND CHANGE by Graduates" is a monthly magazine, an initiative by SAKSHYA, the society of History department of Shyam Lal College (Evening), which deals with social, political, and economic issues besides keeping an eye on contemporary interpretations. This journal by graduates takes us on a journey of the past through the present to see the future aspects. As said by Mahatma Gandhi, "Live as if you were to die tomorrow. Learn as if you were to live forever". This journal will help you have a great learning experience as it comprises articles, book reviews, movie reviews, fictional stories, poems, etc., dealing with contemporary issues.

"PRESENT IS THE KEY TO THE PAST"

February 2022 (Theme)

"Science Splash"

CONTACT :

Archana Bharti- +91 7209232412
Aaradhiya Tyagi- +91 7579881299
jcc.slce@gmail.com

ABOUT JCC

JOURNAL OF CONTINUITY AND CHANGE

-by Graduates

"JOURNAL OF CONTINUITY AND CHANGE by Graduates" is a monthly magazine, an initiative by SAKSHYA, the society of History department of Shyam Lal College (Evening), University of Delhi.

The magazine features articles from the editors and from graduates all around the country. The articles are based on the respective theme selected for that month's edition. The magazine has a special section for the **Graduate's Scholars Talk Series** (GSTS) featuring articles of the participants of GSTS of the previous months. We also have a '**Reconnaissance' section** in the magazine which includes research papers of the graduates which are not bound by the theme and can be on any topic provided the research is done by the graduate himself/herself. The magazine also has a '**Cultural Critique**' section which includes recommendations by the Editors on various things like books, movies, podcasts, paintings, etc. The '**Genius Section**' of the journal ignites your mind with quizzes, fascinating facts and so much more. At the end of the magazine, there is an introduction of all the issues published before along with the announcement of the launch of Volume 2.

Thus, the Journal of Continuity and Change (JCC) by Graduates makes its readers witness a plethora of interesting ideas all on one platform.

YOU WILL BE BESTOWED A CERTIFICATE FOR YOUR ARTICLE/RESEARCH.

-Team JCC

FEEDBACK OF JCC

- Dr. Amna Mirza

(Department of Pol. Sc., SPMC, DU)

Very good initiative. It aids the students in their holistic learning process

- Mr. Mudit Bhardwaj

(BAP, 6th Semester)

JCC is an amazing initiative by the young guns consisting of multidisciplinary articles embedded with rich content.The JCC team is too good

- Ms. Shikha Yadav

(BAP, 4th Semester)

Very Interesting and acquired knowledge by their creativity and views, which help us to create their own views in regarding when we find anything which inconsistent or derogation of fundamental rights, we have to stand up for our rights, if someone boycotts the fundamental laws Just Amazing!

- Ms. Manmeet Kaur

(BAP, 1st Semester)

I loved how they all explain the theme very precisely.

To give your feedback for this edition click on the feedback icon

FROM THE EDITORS

"Science does not aim at establishing immutable truths and central dogmas; its aim is to approach the truth by successive approximations, without claiming that at any stage final and complete accuracy has been achieved"

~ BERTRAND RUSSELL

Science, no doubt is the most immense and alive of all subjects that integrated all spheres of life. Science is a way of thinking much more than it is a body of knowledge. Science exists everywhere around us and just like any other educational disciplines such as history political science and literature as science consumes power entire beings. Even reading this magazine is possible because science is working in full gear to make you see things around yourself science is the knowledge of consequences and dependence of one fact upon another science is the acceptance of what it works and the rejection of what does not. Science is actually the art of exploring mysteries through questioning. And the important thing is to not stop questioning curiosity ee has its own reason for existence. Science is much more than white coat and lab equipment,

Science (from Latin Scientia 'knowledge') is a systematic enterprise that builds and organizes knowledge in the form of testable explanations and predictions about the universe.
Science provides us with knowledge about so many things in our environment. It shows us how to carry out specific procedures to get an expected outcome. Since it encourages innovation, it has led to the development of technology that makes life easier. Some of the inventions include robots, televisions, planes, and computers. The most interesting thing about science is that it's never finished. Every discovery leads to more questions, new mysteries, to something else that needs explaining. It's a case of 'the more we know, the more we know we know nothing at all. Because science is entirely founded on facts and experiments, it does not change through time; the fundamentals never change. You can see how science is used in almost every part of our lives. Every new technology was founded on scientific principles. Science and technology are mutually beneficial. Science investigates natural occurrences based on facts and develops new technology to make our lives easier. Through the issue Science Splash, all the editors, through their articles, wish to show how science is more than physics and experiments.

Our editor Ms. Archana Bharti has written an article titled **THE SCIENCE OF SKINCARE** which talks about the role of skin care in our lives and how science plays a big role in the production of skincare

products. The quest of achieving perfect skin has always been there. And this can be testified through the fluctuating trends in the skincare industry like the ‘going natural’ trend, ‘Korean glass skin trend. But do these trends really appropriate to follow for different types of skins all across the world? Is skincare just a definition of beauty and is it really okay to be ignorant of it while using all sorts of brand products? These are some questions that we need to ask ourselves. The skin is more than just skin-deep. It is a portrait of your health, body, and confidence.

Editor, Ms. Priyanka Verma wrote an article titled **CULMINATION OF LIFE,** which discusses two major life-end-issues that are **SUICIDE** and **EUTHANASIA.** Is suicide the only solution to all the enduring pain or trauma? Is there any rationality behind Euthanasia? What is the status of both of these issues in the world and most crucially in India?

In the journal, our editor, Ms. Divya Tyagi wrote an article, **UTOPIA: REALITY OR FANTASY?** where she talked about the meaning of Utopia and its necessity. We need not only dream about a perfect, wondrous world but we need to search for it, and create it the way we want only then can we achieve bliss. We all have a utopian side to our brains, which we are normally careful to disguise, for fear of humiliation. Yet, our visions are what carve out the space in which later patient and real development can occur.

Through her article, '**एक सिक्के के दो पहलू: धर्म विज्ञान'** our editor Ms. Deepa shows a clear picture of how science and religion touch each other. If science forgets its religion, there will be less development and more destruction. Similarly, if religion neglects its science, then religion will be entangled in rituals. Therefore, through her article, she has unveiled the interconnectivity of facts and myth, of science and religion.

Finally, we are all set with hopes and aspirations to bring out the “JOURNAL OF CONTINUITY AND CHANGE (JCC) BY GRADUATES". This journal is indeed a pious attempt to give shape to the creativity of our budding scholars and bring out the best in them. While reading the articles, you will realize that this journal helps you connect the past, present, and future. We are living in an era of controversies with shaky opinions which put a devastating effect on our minds; this magazine will help you find the light amid the darkness.

We are thankful to our Professors, whose guidance paved the way for the development of the extremely well-written magazine. We extend our heartiest greetings and best wishes to the readers and hope this journal will garner your admiration and prove itself worthy of playing a decisive role in nurturing the reader’s mind. At last, we are thankful to the whole editorial team for constantly working hard in creating this magazine. We express our considerable appreciation to all the authors of the articles in this magazine. It is this willingness to share knowledge, concerns, and special insights with fellow beings that have made this magazine possible.

-EDITORIAL TEAM

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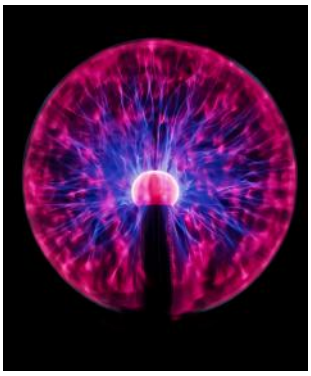

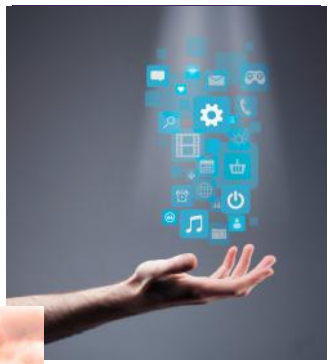

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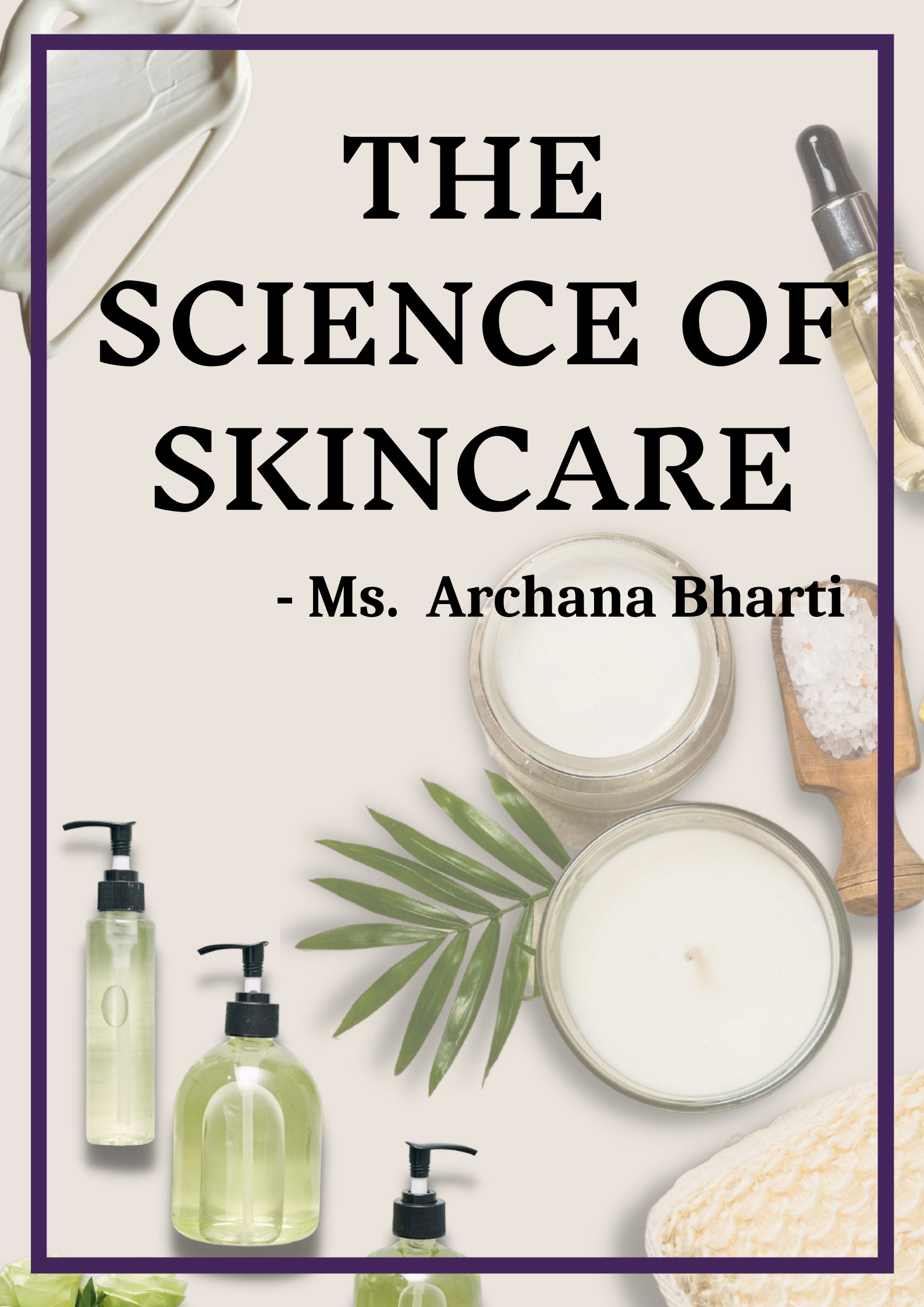
- Ms. Archana Bharti



THE SCIENCE OF SKINCARE

MS. ARCHANA BHARTI

(GRADUATE CANDIDATE, SLCE, UNIVERSITY OF DELHI)

Skincare is a term that we are all aware of. And, if you are not then I can say that you are probably living under a rock. The skincare industry has been in business since ancient times, going as far as the civilizations of Mesopotamia and Harappa. The only difference that we can see now, in this particular business is that it has become a proficient field of science. In 1967, the zoologist Desmond Morris declared that "Flawless skin is the most universally desired human feature," explaining the primordial human need to "advertise" health, well-being, and fertility with an even-toned, clear, and radiant complexion *(Falla, 2016)*.

The quest of achieving perfect skin has always been there. And this can be testified through the fluctuating trends in the skincare industry like the 'going natural' trend, 'Korean glass skin trend, and the most recent trend that is being led by ingredient-conscious skincare enthusiasts. These enthusiasts might know what they are looking for, but for many people, the skincare industry is a haywire mess. Consumers are faced with a paradox of choice, no matter where they look for. Be it drug stores, department stores, or online, oftentimes people are forced to either try out different products or go along with the tag of any brand. This, in the end, leads to them purchasing expensive products that fail to live up to their reputed benefits. And the risk that a wrong skincare routine can pose on your wallet can be discerned through the following data.

When asked the question, what is the most important part of a human's body, there might be some different opinions on it.

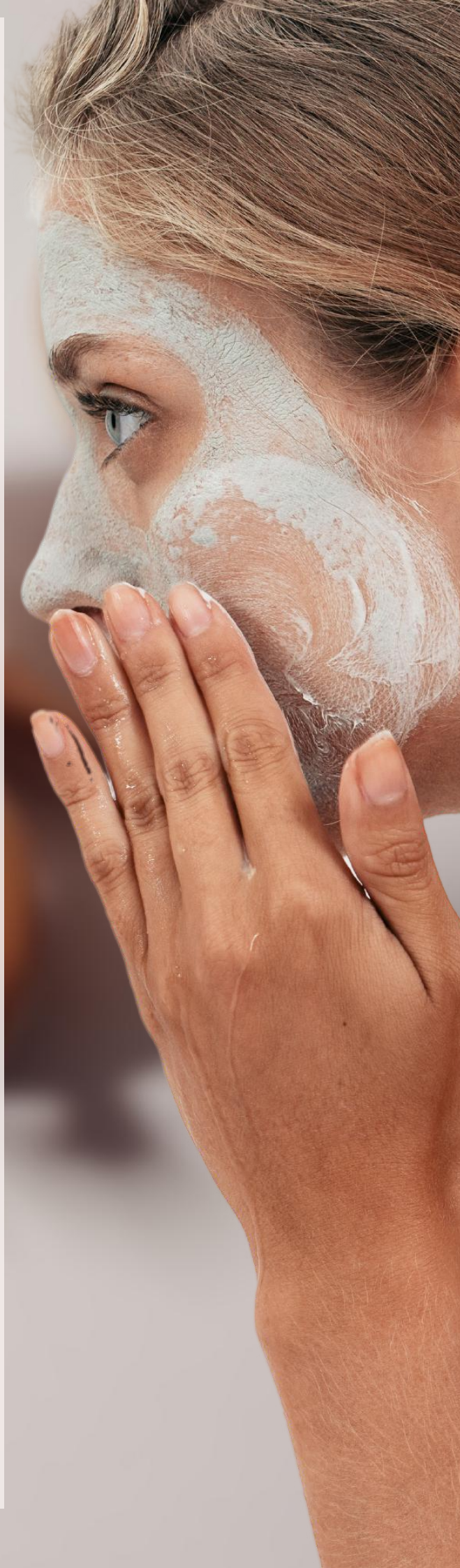
Some might consider the correct answer to be eyes, ears or our brain or heart. But in my opinion, the most important and the largest part of a human's body will always be the skin. And it becomes paramount to protect this skin as well as it protects the other parts of your body.

According to an NPD Group report, **skincare sales increased by 15% to $1.3-billion in the US in 2018, with a growing demand for natural brands** *(Williamson, 2019)*. Another report in the Allied Market Research rated the ***Indian skin care products market size value at $2,478.4 million in 2017 with the projected reach of $5,033.7 million by 2027, registering a CAGR of 9.5% from 2021 to 2027.***

So, what is the solution? What is the perfect skincare product for you? Well, the answer to this question can only be answered through the scientific study of your skin first and foremost. Every skin might be different on the surface but the mechanism inside is more or less the same.

Human skin is a complex biological organ straddling the junction between beauty, health, and disease *(Mahto, 2018, 9)*. Our skin is much more than just skin-deep. It plays many important physiological roles in maintaining health from providing a physical and biochemical barrier from the outside world to protecting us from ultraviolet (UV) light from the sun and then preventing water loss and blocking the entry of unwanted microbes and chemicals. The human skin is a vital sensory organ that regulates body temperature and also produces vitamin D production.

It is thus ironic that we become so obsessed with making our skin look good that we often forget to appreciate it for all the good things it does for us every day. Beyond serving as our “billboard” to the world, the principal functions of skin include protection, excretion, secretion, absorption, thermoregulation, pigment production, sensory perception, and the regulation of immunological processes (Falla, 2016). And that’s why it is important to take care of it through skincare products containing either cosmetics or Food and Drug Administration (FDA)-approved actives. It is certified that the use of the combination of cosmetics and OTC drugs for a prolonged period in a skincare regimen has the potential to produce significant demonstrable benefits. The perception of youthful, healthy skin germinates from a number of features of the two layers of the skin, epidermis, and dermis, including the distribution of cells within



connective tissue, variations in skin's natural fluorescence, density and quality of the extracellular matrix, and the appearance of cornified cells at the skin surface. Alterations in skin physiology can result in a number of visible skin conditions ranging from minor acne to xerosis and abnormal pigmentation. It is here that the combination of OTC and cosmetic skincare products delivered in a regimen can play a significant role in restoring the skin.

But the key components of any effective skincare routine are the same: Protection, prevention, cleansing, and moisturizing. The common type of skincare product that dermatologists recommend to use on a daily basis is sunscreen. The reason behind this is that most sun damage results from daily exposures rather than occasional bursts while on vacation. The active ingredients generally used in sunscreens are Zinc Oxide and avobenzone which are very effective in blocking out harmful ultraviolet A and ultraviolet B rays. An interesting fact about sunscreens is that no new sunscreen actives have been approved by the FDA since the 1990s as they are required to undergo safety and efficacy testing and meet stringent labeling requirements. Other than sunscreens, cleansers and moisturizers are also commonly used by everyone. There is an array of cleansers in the skincare business and no two formulas are ever similar. Even though they might have similar ingredient lists, their efficacy rate will not be the same. Moisturizers supply humectant agents, which draw water into the stratum corneum from the environment and dermis below *(Falla, 2016)*. Almost all moisturizers have a similar ingredients list containing both humectants, for example, hyaluronic acid, allantoin, and urea along with occlusives like mineral oil, petrolatum, and lanolin. Humectants are present in the water phase of the formula of the particular skincare product whereas occlusives are in the oil phase.

Another important portion of a 'holy grail' skincare regime is exfoliation. As we age, the skin's radiance diminishes due to the slow down of the epidermal cell turnover. This causes a buildup of dead keratinocytes in the stratum corneum and follicular Ostia which ultimately results in the appearance of rough, dry skin, enlarged pores, and poor light reflection.

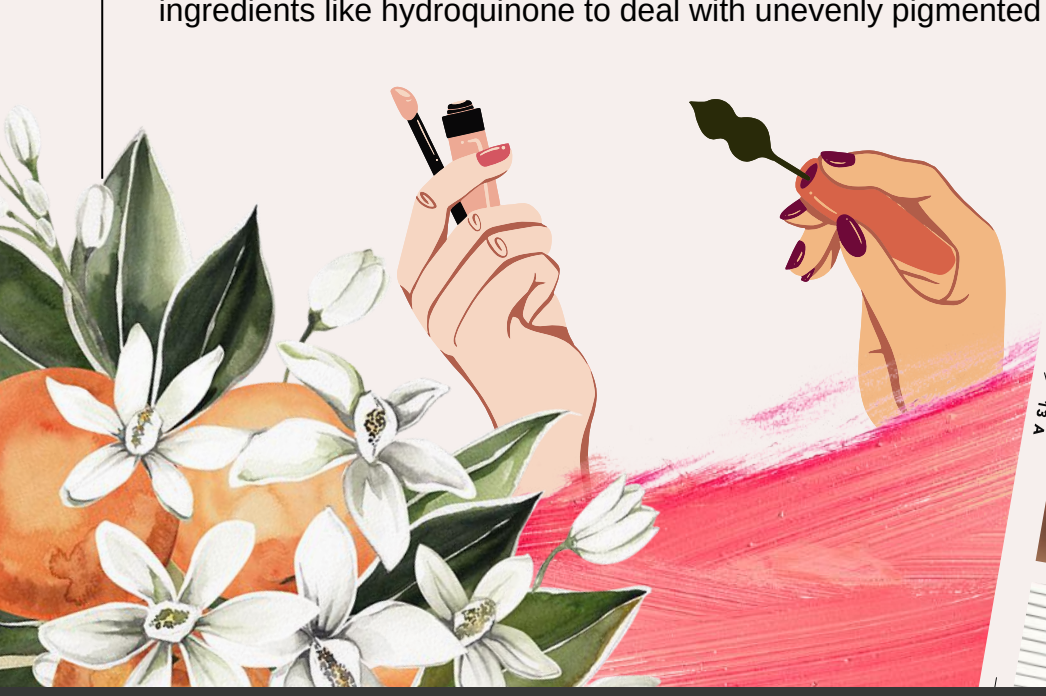
Exfoliation, through chemical or physical means, is the process of removing excess corneocyte buildup, which in turn stimulates cell turnover, resulting in a more polished, smoother, translucent surface (Falla, 2016). Commonly used chemical exfoliants include malic, lactic, and glycolic acids under the pennon of α-hydroxy acids (AHAs) whereas salicylic acid is a β-hydroxy acid. Continuous research is going on in this sector, generally in terms of making a concentration ranging from 7% to 10% and buffered to a pH above 3.5 intending to reduce burning and irritation. Recent market introductions include polyhydroxy acids like Mandelic acid and lactobionic acid. Another exfoliation method that we are familiar with, is physical exfoliation. This method is more widely practiced by consumers than chemical exfoliation. This method includes a wide range of products from topical cleansing scrubs containing a variety of abrasive solid particulates, sonicating devices, mechanical facial brushes, and mildly abrasive cosmetic tools like micro-exfoliating rollers.

Physical exfoliation induces immediate desquamation, which in some cases can produce a temporary disruption of the skin barrier, resulting in increased transepidermal water loss (Grimes, n.d.). On a minimum budget, these methods of exfoliation are one of the best for maintaining the healthy radiance of one's skin.

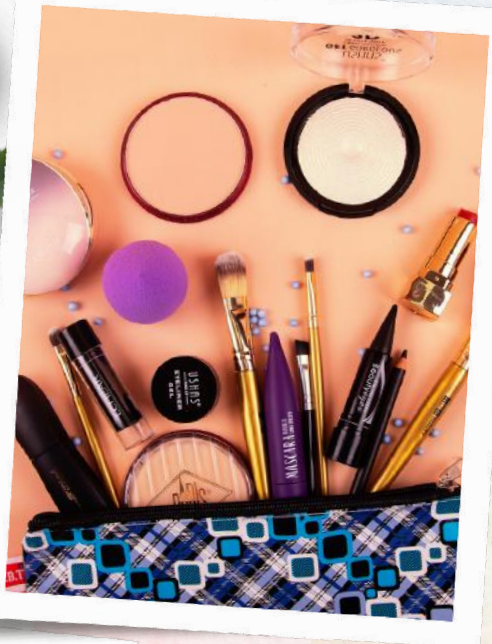
But one also has to keep in mind the texture of their skin. No great art can be made without a great canvas. Therefore, to maintain a healthy skincare regime, it's extremely important to know the type of your skin. Moreover, one needs to be extra cautious around the landmine of skincare, 'the sensitive skin'.

Sensitive skin is a self-diagnosed condition. It is also estimated by dermatologists like F.N. Marzulli that almost 50% of women and 40% of men view themselves as having sensitive skin to some degree. They describe their skin as uncomfortable, itchy, highly reactive, red, and dry and that it is exacerbated by the environment (ultraviolet radiation, temperature, and wind), cosmetic products, topical medicinal, stress, pollution, and hormones. Although we don't exactly know the pathophysiology of sensitive skin, dermatologists attest that there are 3 broad areas involved in this: barrier function, inflammation, and sensory nerve abnormalities. Therefore, people with sensitive skin out there are recommended products with minimal ingredients. The primary objective is to retain moisture of the skin through humectants and prevent transepidermal water loss with the use of barrier molecules. Additionally, natural moisturizing factors, lipid complexes, ceramides, along topically applied chamomile are also beneficial against inflammation.

Now, let's come upon the most important segment of a skincare regimen. Almost every person on this planet must have some or the other day, suffered from acne. Acne is a medical condition that undermines a person's confidence as people are often stigmatized for it. The spectrum of breakouts ranges from occasional pimples and blackheads to chronic and widespread nodulocystic lesions which have scarring potential. These scars are more severe for people with darker skin tones as one experiences postinflammatory hyperpigmentation due to this. And due to these reasons, many people, like myself, are forced to look around for advice from so-called professional bloggers, which most of the time are harmful to the skin. Generally, dermatologists provide OTC products in managing mild to moderate breakouts which include salicylic acid (0.5%–5%), benzoyl peroxide (2.5%–10%), and sulfur (3%–10%). In acne-prone skin, oil-free products which are non-comedogenic like zinc oxide and avobenzone are recommended. Topical antioxidants including ingredients like resveratrol, quercetin, and cinnamic acid are also recommended. Along with that, 'brightening agents' like Kojic acid, AHAs, licorice root, and water-soluble derivatives of vitamin C can also be used to get rid of the hyperpigmentation caused by acne. There are also cosmetic-grade products available like hexylresorcinol, pterostilbene, and 1-methylhydantoin-2-imide as alternatives to harsh ingredients like hydroquinone to deal with unevenly pigmented skin.

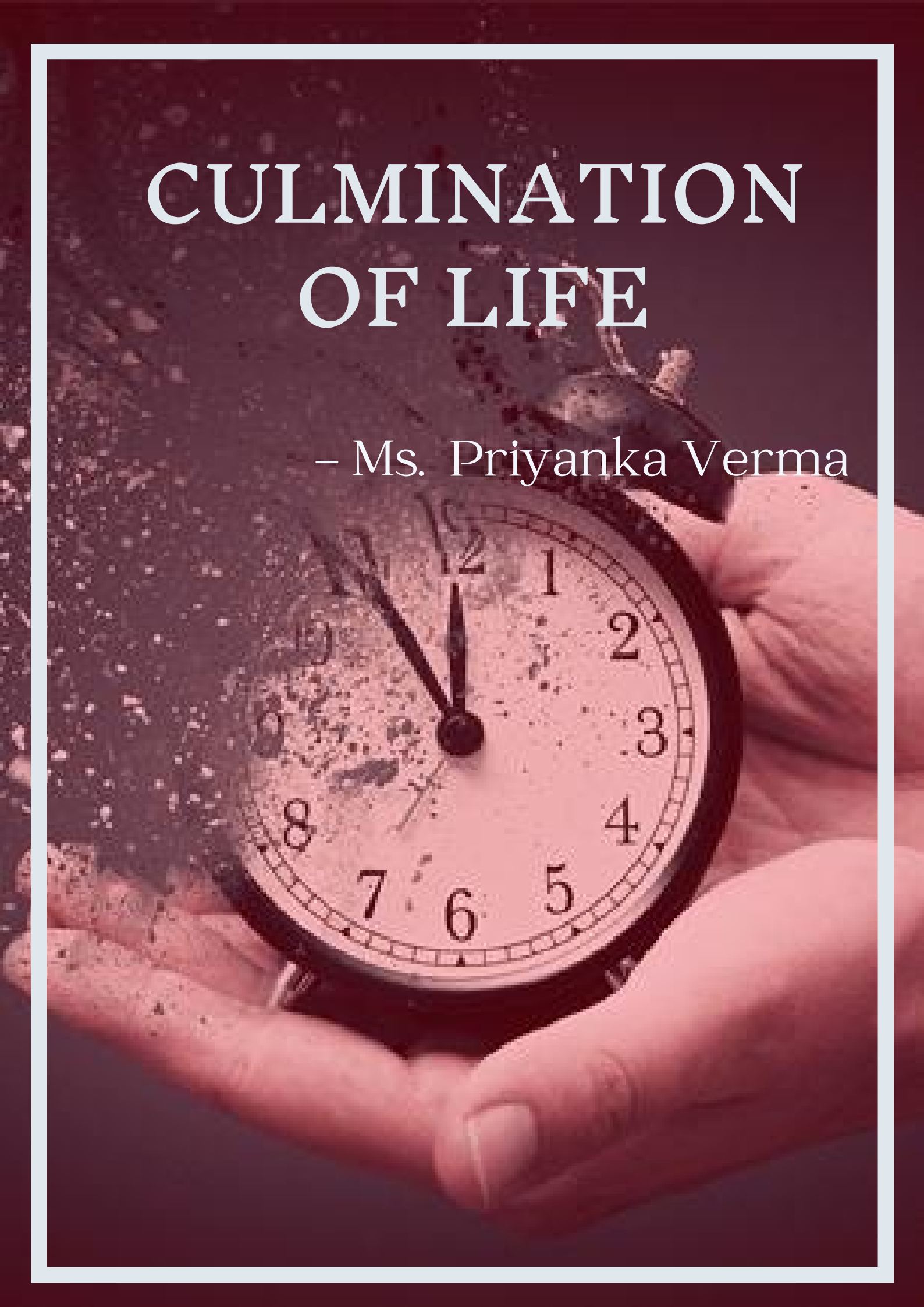


As we grow older, so does our skin. Its inherent anti-aging mechanism weakens, critical processes slow down, and the rate of breakdown of key constituents increases. And though cosmetic products aid you to feel temporary joy, in the end, it does not have a positive impact on the overall quality of the skin. Therefore, it becomes paramount to know the science behind the skincare product you are using and get clinically proven products, formulated with the right ingredients. It is very important that we choose the right product as the skin is not just the means of beauty but also the sole testimony of your health. There are a number of ‘gharelu nuskhe’ and recipes of weird mixtures online, most of which are either homemade experiments or just personal experiences. To filter out the truth from the colossal hoard of lies can only be possible when you are familiar with the product you are putting upon yourself. Investing in your skin is like spending upon a gala time with yourself. It's a way of taking care of yourself and not a way of splurging. The journey to perfect, healthy skin is one that requires willpower and determination. As author Lancy Nael also said in her book ‘Soulful Skincare: The ultimate guide to radically transforming your complexion’, “Don't forget that healing takes time. Don't expect to try meditation and a new skincare line and end up with perfect skin in a week. Give yourself the gift of time and patience. The body is a complicated, miraculous system and each body processes change in its own time.”



CULMINATION OF LIFE

– Ms. Priyanka Verma



CULMINATION OF LIFE

MS. PRIYANKA VERMA

(GRADUATE CANDIDATE, SLCE, UNIVERSITY OF DELHI)

From the very instant of birth humans suffer through pain.There are grey areas which mentally affect us. But few people fall into the tragic phase where this pain is indestructible, where people seek to go beyond the state of treatment. There in lies the two life - end-issues Suicide and Euthanasia .

To get a great extent, let's confer about them one after another. Suicide is the act of intentionally causing one's own death that has a perpetual ripple effect, affecting the lives of families. There are instances where people encounter mental disorders such as depression , bipolar disorder , schizophrenia, borderline personality disorder, alcoholism or drug abuse.Somewhat these disorders attribute to the cause of Suicide.

By the time you finish reading this article, a young person below 25 might have committed suicide. Sometimes they are famous names like Sushant Singh Rajput, Jia Khan etc. that make headlines and some that can't make it to the newspapers but are somebody's sons, daughters, friends or valued members of families. Suicide can't be a run off thing as for a human being to encounter someone's death and suicide it seems like an end game. Perhaps there's a need to dig upon psychologically that what a person goes through to come to that shade of a decision.

It's the most horrible part of one's life where at an instance or so they feel trapped either by physical situations , financial situations or emotional situations. Often a times absolutely trapped when there is no other way this is when they take that kind of violent exit which we call a suicide. If one person commits suicide it's a human. It must be concerned for the whole humanity why is this happening?

I think those who have a terminal illness and are in great pain should have the right to choose to end their own life and those that help them should be free from prosecution

—Stephen Hawking.

Suicide.

The word caught your attention, didn't it? The truth is, suicide catches everyone's attention. It's the actions leading up to suicide that go unnoticed.

We are somewhere driving ourselves to certain desperation, one big root cause for this could be the education system. Unfortunately, it's a schooling methodology that is killing people because if you get 98 you're no good, people will ask you where is the other 2%! Apart from this, there are various other things because there is no clarity about life. But suicide does not solve problems it even creates worse problems. Depression can be cured when discussed. Asking for help is the best place to start recovery.

According to National Crime Record Bureau (NCRB) , the total number of Suicides in India increased from 1,31,008 to 1,53,052 in 2020. Suicide rose to all time high in 2020 in which students,farmers and daily wage workers made up the greatest share. So is suicide rational or not? People enduring major trauma or pain should be allowed to autonomously choose to die. Suicide attempt in India was a crime as under the Section 309 of the Indian Penal Code,any person who attempts to commit suicide shall be presumed ,unless proved otherwise ,to have severe stress and shall not be tried and punished under the same code. But it is no more a crime in India. Yet the question isn't whether it should be criminalized or not,rather it should be stressed here that mental illness with its many forms should be treated effectively.

Although section 309 is still in effect, Parliament passed mental healthcare act,2017 which restricted its application. The act states that "Notwithstanding anything contained in section 309 of Indian penal code, any person who commit to sucide shall be presumed, unless proved otherwise, to have a severe stress and shall not be tried and punished under said code". However this law only applies to person sufffering from mental illness.

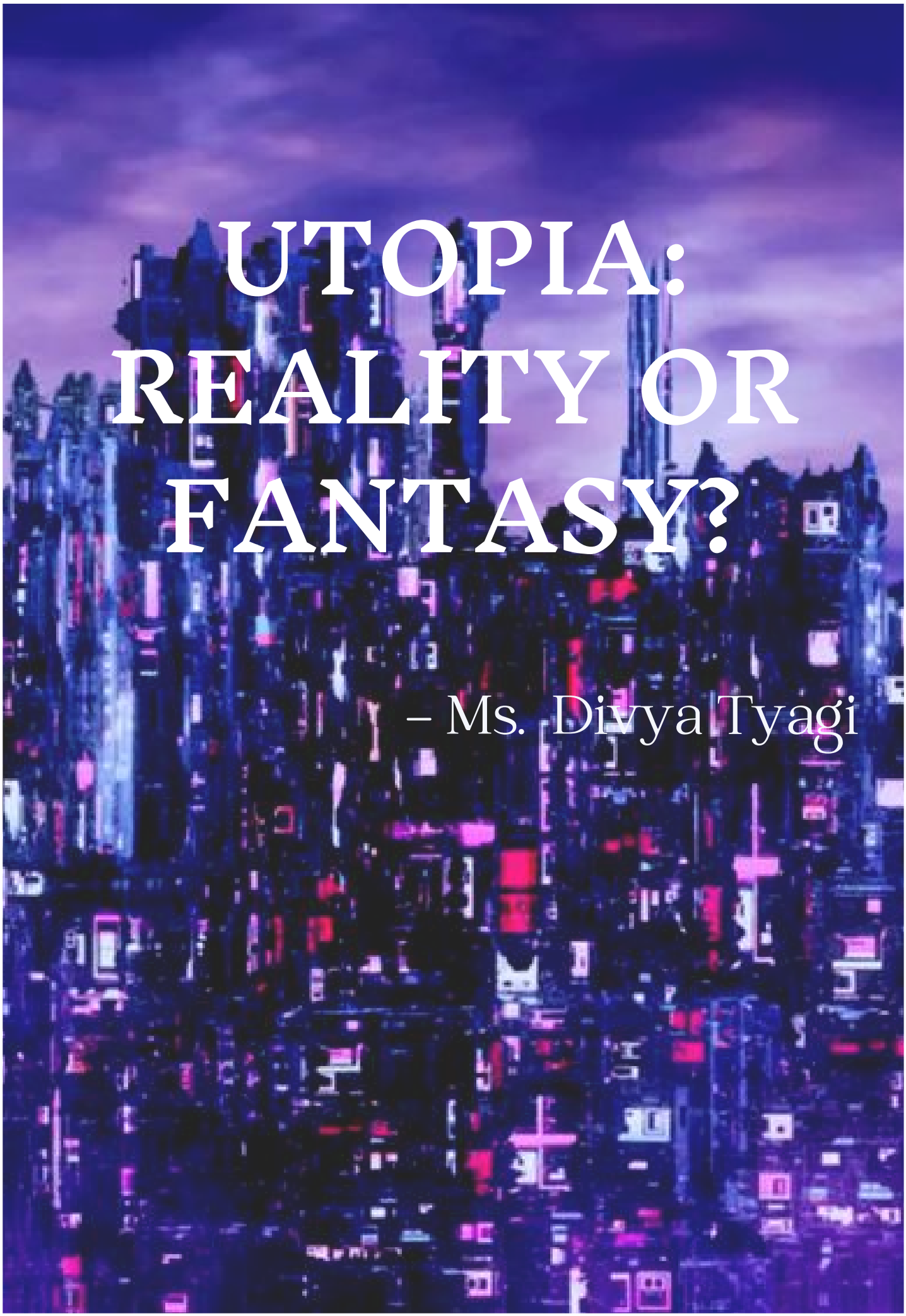
But what if severe stress is not provided? We have to shift from penalizing attempts to suicide to making such case medico-legal ones and provide psychological or mental treatment and support to the person affected.

As the issue demands a reformative stance, we need a permanent solution like repealing section 309 of Indian penal code or striking it down. Some of the methods may include treating mental disorder,preventing social disintegration,reducing social isolation, promiting psychological motivational sessions, meditation and yoga. You know, one has seen in India there was a way people used to leave the place and go to a place like Kashi and will die. At present we consider it euthanasia i.e. painless killing of patient suffering from incurable and painful disease or in irreversible coma. In some cases some people want to end their life. In many case it is carried out at person request but there are times when they may be too ill and decision is made by their relatives,medic or even by court.There are two types of Euthansia i.e Passive Euthanasia when you let the patient die and Active Euthanasia is when you actively end life of terminally ill-patient.Supreme court ruled that passive euthanasia is legal and allowed the writing of legal will in such cases.Living will is a document that a person writes in his normal state of mind seeking passive euthanasia if he or she reaches an irriversible state. Court confirmed that right to die with dignity is fundamental right.

- Euthanasia is sensitive and complex issue that has been debated across the world for centuries. Various factors come into play when discussing the topic including safeguards in legislation, morality and the precedent it may set. In the U.S. and other countries, euthanasia has been a topic of debate since the early 1800s.
- In 1828, the first anti-euthanasia law in the U.S. was passed in New York state. In time, other states followed suit.
- In the 20th Century, Ezekiel Emmanual, a bioethicist of the American National Institutes of Health (NIH) said that the modern era of euthanasia was ushered in by the availability of anesthesia.
- In 1938, a euthanasia society was established in the U.S., to lobby for assisted suicide.
- Physician-assisted suicide became legal in Switzerland in 1937, as long as the doctor ending the patient's life had nothing to gain.
- During the 1960s, advocacy for a right-to-die approach to euthanasia grew.

The opinion that euthanasia is morally permissible is traceable to Socrates, Plato, and the Stoics. It is rejected in traditional Christian belief, chiefly because it is thought to contravene the prohibition of murder in the Ten Commandments. The organized movement for legalization of euthanasia commenced in England in 1935, when C. Killick Millard founded the Voluntary Euthanasia Legalisation Society (later called the Euthanasia Society). The society's bill was defeated in the House of Lords in 1936, as was a motion on the same subject in the House of Lords in 1950. In the United States the Euthanasia Society of America was founded in 1938.

In our society, the palliative care and quality of life issues in patients with terminal illnesses like advanced cancer and AIDS have become an important concern for clinicians. Parallel to this concern has arisen another controversial life-end-issues that is Suicide and euthanasia or “mercy – killing” of terminally ill patients. These issues have two aspects of solutions one is that involves consent therefore it should be normalize that dignified death through Euthanasia is a right and one in which there is a scope of treatment that is Suicide. Access to, and quality of,health care is a very real concern. A good health care system is based on a number of things , one being medicine and other is the required kind of treatment. Medical science is progressing in India as in the rest of the world, and hence currently we are having devises that can prolong life by artificial means. This may indirectly prolong terminal suffering and may also prove to be very costly for the families of the subject in question. Hence, end-of-life issues are becoming major ethical considerations in the modern-day medical science in India. Moreover, concerns for its misuse remain a major issue which ought to be addressed .


UTOPIA:
REALITY OR
FANTASY?
– Ms. Divya Tyagi

UTOPIA: REALITY OR FANTASY?

MS. DIVYA TYAGI
(GRADUATE CANDIDATE, SLCE, UNIVERSITY OF DELHI)

Human beings have always had an image of where they came from and where they're going, often an 'ideal'. The curiosity of the future and the ideals is perceived through Utopia. **Thomas More**, an English philosopher, duly defined **UTOPIA** as 'a perfect imaginary world', 'an ideal society, and in laymen's language a *'paradise'.* A perfect place where a happier life and a life with new technologies exist, where unlooked-for natural events occur creating a wonderland for people to live in.

But, at the very heart of the word is a vital question: can a perfect world ever be realized? Or is it just a fantasy?

It's human nature to dream about Utopia, a place better than here, about what our lives could be, what our world could be.

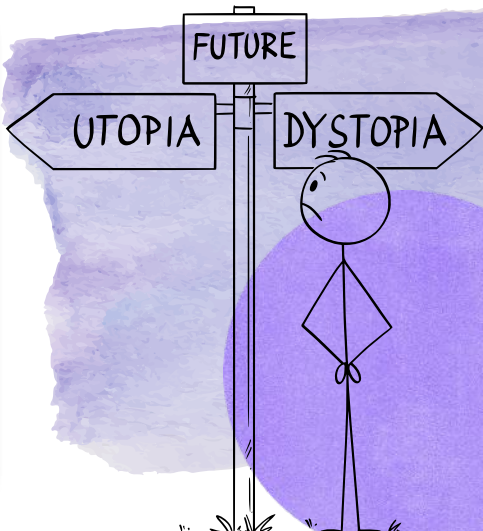
But we have always confused Utopia with ideology; **Karl Mannheim**, a German sociologist identified 'ideology' as the typical mentality or the dominant classes, while he considered Utopia to be forma mentis (mindset) of the lower.

> "Reality is what people who lack vision see."
> — Mokokoma Mokhonoana

And I completely agree as the people with fewer opportunities have the imagination to think of a life which provides perfection. We live in challenging, problematic times, where it becomes a necessity to dream of a world that is **free of religion, but full of spirituality; free of politics, but with complete democracy; free of poverty, but filled with humanity.**

Utopia can be classified into four different categories:

- **The Paradise**, in which a happier life is described as simply existing elsewhere;
- **The externally altered world**, in which a new kind of life has been made possible by an unexpected natural happenings;
- **The willed transformation**, in which a new kind of life has been achieved by human effort;
- **The technological transformation**, in which a new kind of life has been made possible by a technical discovery.



Do you begin to see, then, what kind of world we are creating? It is the exact opposite of the stupid hedonistic Utopias that the old reformers imagined. A world of fear and treachery and torment, a world of trampling and being trampled upon, a world which will grow not less but more merciless as it refines itself. Progress in our world will be progress toward more pain. (Orwell, 1949)

Many philosophers and writers like George Orwell believed that we are creating a wormhole of pain and falling down the abyss of endless struggle and turmoil. Even in the contemporary set up the world is facing issues of Habitat and biodiversity loss where we are experiencing a worldwide loss of many species including Asian elephants, blue whales, snow leopard and many more to the point where they are on the verge of extinction. In an ideal world, all animals would be able to live in their natural habitats.

A more critical issue is the water crisis in the world. As with food, there is enough fresh water for each person currently living on the planet. However, access to that water is not always possible for everyone. About two billion people still use a source that is contaminated with human waste, and about the same amount don't have access to adequate toilet facilities. (Van Vuuren, 2022)

A most terrible problem that compels people to dream of Utopia is Terrorism; the bombing incidents of the last few years including Israel, Palestine, Afghanistan, Ukraine, etc., continue to claim the lives of innocents. It is a threat to the peace, security, and stability of the world and nobody can be held accountable.

And since the pandemic, the matter in question is the technological development across the world. We've been facing trouble with issues related to data privacy, cybersecurity threats. All this while, we have realized that the authorities failed awfully to provide the best technical help to those who required it the most.

CREATE YOUR FUTURE

There is no future for critical theory without a utopian vision. And the utopian vision has been moribund since the end of the nineteenth century. This situation may represent a temporary failure of imagination that is capable of being repaired. And yet, since the period of failure now stretches across more than a century, and counting, it is perhaps past time to confront the matter head-on and ask: Is any effective repair still conceivable? If the answer is yes, how is it to be done? If not, then where does that fact leave the critical theory of society? (Leiss, 2017)

We need to become the change we want to see in the world and we humans have to put in all our efforts in order to design a world that is faultless. We fabricate both our paradise and hell. I concur that it is not appropriate to determine the way the world 'should be' based on the way the world 'is' but we lack the vision.

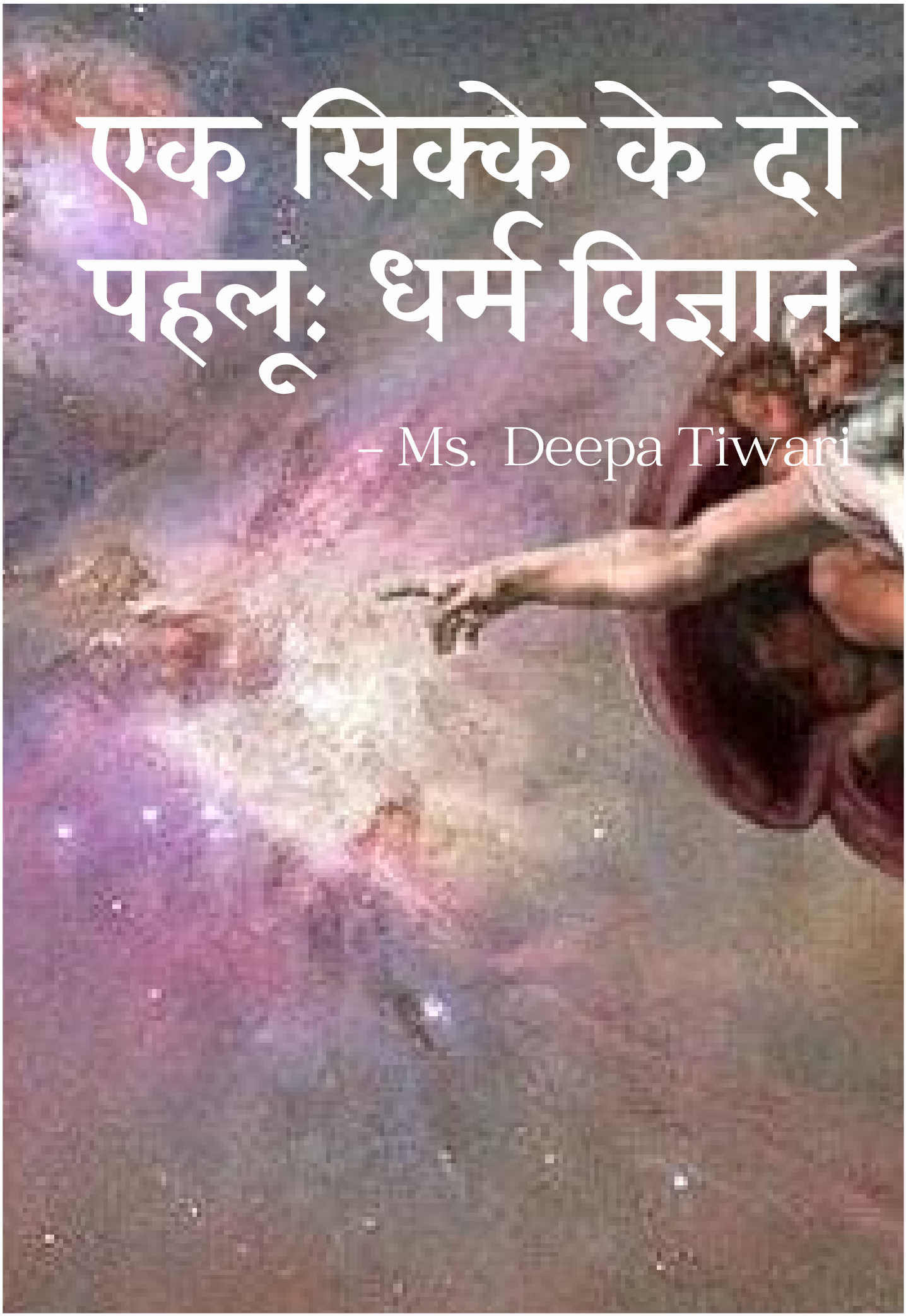
Books like ‘Utopia’ by Thomas More, ‘Alice in wonderland’ by Lewis Carroll, George Orwell’s ‘1984’, ‘Pandora’s star’ by Peter F. Hamilton are not mere sci-fi stories that tell an extraordinary tale with new reflections and untried sources of emotion which excites the readers and gives us hope for a better future but its vision of a quintessential world is the beginning of the journey to achieve that one day. And this is what science fiction tries to do; to ignite and kindle the fire to dream and imagine.

“Down the mountain we shall go and down the passes, and as the valleys open the world will open, Utopia, where men and women are happy and laws are wise, and where all that is tangled and confused in human affairs has been unraveled and made right.” (Wells, 1905)

We need not only dream about a perfect, wonderous world but we need to search for it, and create it the way we want only then can we achieve bliss. We all have a utopian side to our brains, which we are normally careful to disguise, for fear of humiliation. Yet, our visions are what carve out the space in which later patient and real development can occur.

We should be committed to Utopian Thinking and the envisaging of the world as it should be.

“The end of our foundation is the knowledge of causes and secret motions of things and the enlarging of the bounds of human empire, to the effecting of all things possible.


एक सिक्के के दो पहलू: धर्म विज्ञान
– Ms. Deepa Tiwari

एक सिक्के के दो पहलू: धर्म विज्ञान

Ms. Deepa Tiwari
(Graduate Candidate, SLCE, University of Delhi)

> **विज्ञान धर्म के बिना पंगु हैं और धर्म विज्ञान के बिना अंधा है**
>
> **- अल्बर्ट आइंस्टाइन**

धर्म" संस्कृत भाषा का शब्द है। यह "धृ" धातु से बना है जिसका अर्थ होता है " धारण करना " यानी जो धारण करता है, वह ''धर्म'' हैं।

भारतीय परंपरा में 'धर्म' शब्द का प्रयोग दो रूपो में किया जाता है प्रथम रूप में हम धर्म के अर्थ को अपने नैतिक रूप से जोडते है अर्थात अपने दायित्वों का पालन करना होता है। उदाहरण के लिये कहा जाय मित्र का धर्म है कि वह संकट में फँसे अपने दोस्त की सहायता करे या पिता का धर्म है कि वह अपनी संतान के समग्र विकास की कोशिश करे और शासक का धर्म है कि वह समुचित प्रशासनिक व्यवस्था कायम करे, तो इन सभी संदर्भों में 'धर्म' 'नैतिकता' का समानार्थी हो जाता है।

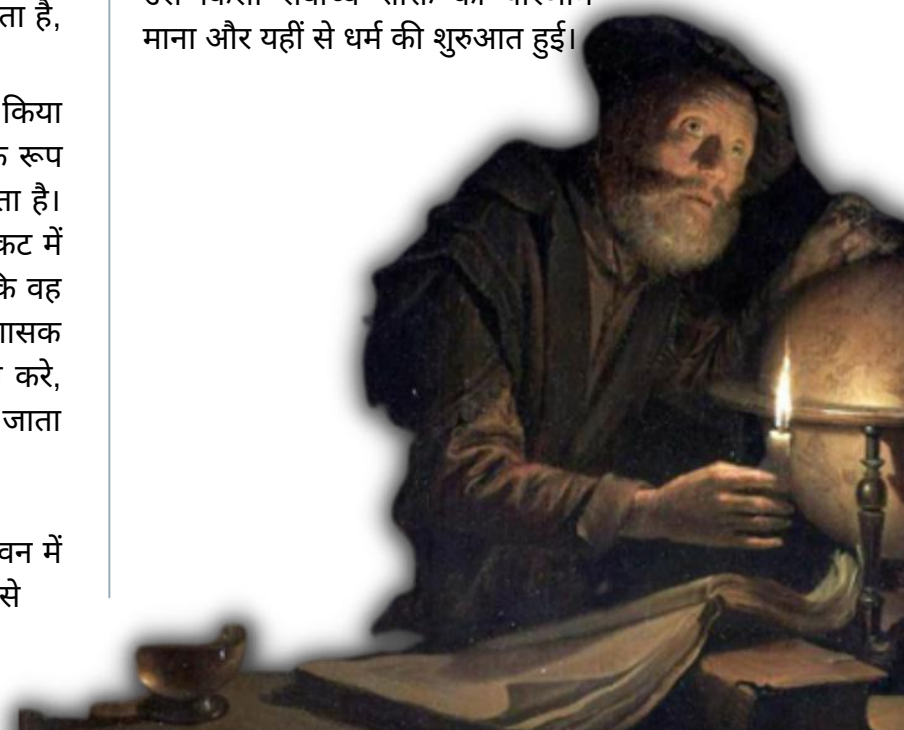
किंतु मूल रूप से हम जिस अर्थ में अपने सामाजिक जीवन में धर्म शब्द का प्रयोग करते हैं, वह थोड़ा भिन्न अर्थ में है जैसे कोई हमसे पूछता है कि आप किस धर्म को मानते हैं तो स्वाभाविक तौर पर हमारा उत्तर हिंदू, मुस्लिम, सिख, ईसाई, यहूदी, पारसी, बौद्ध या जैन होता है।

डॉ. राधाकृष्णन " धर्म की अवधारणा के अन्तर्गत हिन्दू उन स्वरूपों और प्रतिक्रियाओं को लाते है जो मानव-जीवन का निर्माण करती है और उसको धारण करती है।

"**टेलर**" धर्म का अर्थ किसी आध्यात्मिक शक्ति मे विश्वास करना है।

होबेल " धर्म अलौकिक शक्ति के ऊपर विश्वास मे आधारित है, जो आत्मवाद और मानव को सम्मिलित करता है।"

धर्म मानव जिज्ञासा का परिणाम है ।जब मनुष्य ने प्रकृति में मौजूद हर वस्तु के बारे में जानने का प्रयत्न किया जैसे अग्नि, वायु आकाश जीव जंतु ,जैव विविधता इत्यादि का तब उसने उसे किसी सर्वोच्च शक्ति का परिणाम माना और यहीं से धर्म की शुरुआत हुई।



धर्म और विज्ञान में सम्बन्ध

धर्म विज्ञान से जुड़ा है और उसी प्रकार से विज्ञान धर्म से । यदि विज्ञान अपने धर्म को भूलता है तो मानवता का विकास और उत्थान कम, विनाश ज्यादा होगा। उसी प्रकार से यदि धर्म अपने विज्ञान को नजरंदाज करता है तो,धर्म कर्मकांड में ही उलझ कर रह जाएगा।

विज्ञान और धर्म एक-दूसरे के अनुपूरक हैं। दोनों ही सत्य के खोज में है ।किन्तु दोनों में अंतर यह है की विज्ञान का धर्म अधिभौतिक है, धर्म का सत्य अधिदैविक और अध्यात्म से संबंधित है। विज्ञान पहले अनुसंधान करता है, क्योंकि विज्ञान मान्यताओं पर विश्वास नहीं करता , वह तथ्यों को स्वीकार करता है इसलिए विज्ञान में अनुसंधान की जाती है, इस प्रकार अनुसंधान से जो तथ्य सामने आते हैं विज्ञान उसे स्वीकार करता है। इसलिए विज्ञान के क्षेत्र में कोई भी सत्य अंतिम सत्य नहीं है। क्योंकि अनुसंधान से तरह तरह के सत्य बाहर आते हैं।

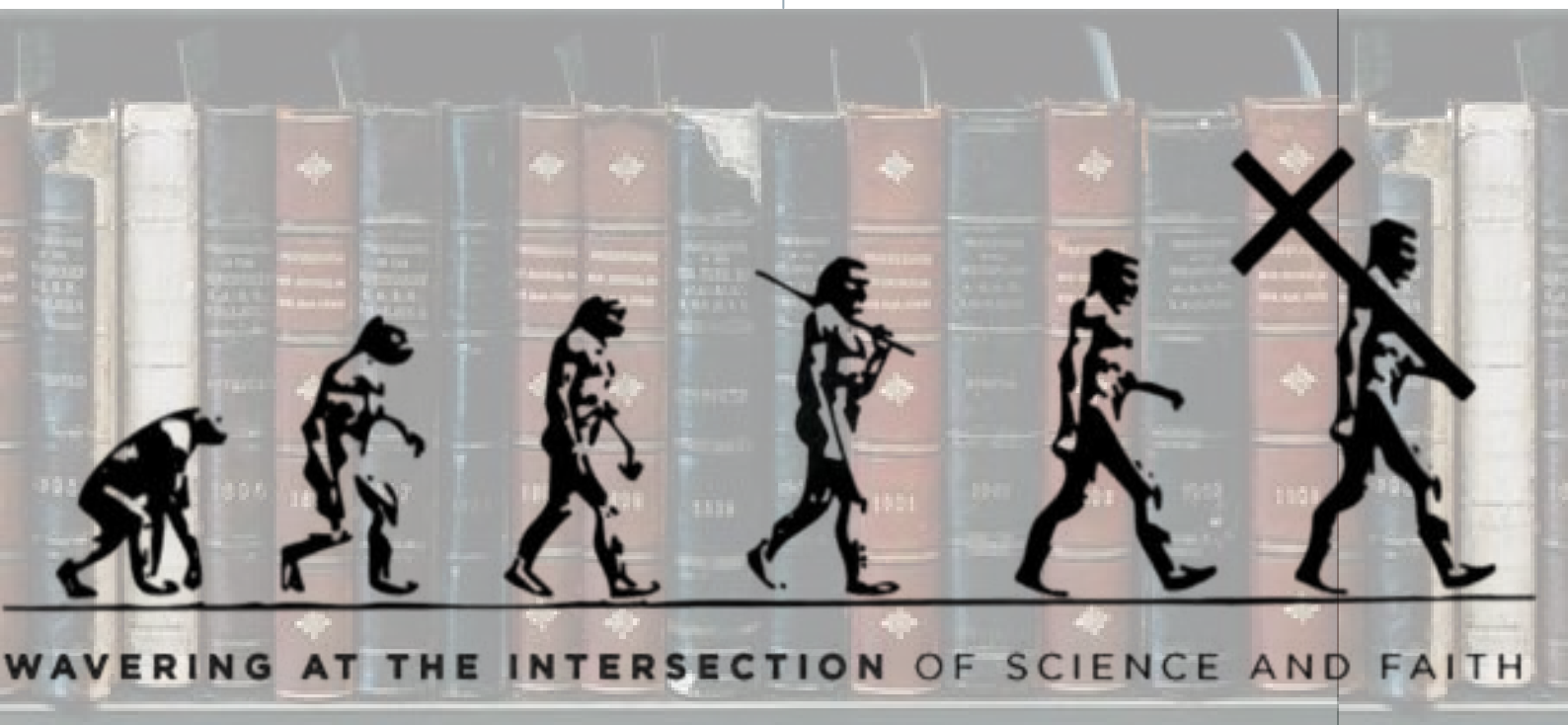
विज्ञान धर्म में संघर्ष व अंतर

वैज्ञानिक संस्कृति परीक्षण ,मुक्त सोच की भावना, तर्क तर्कसंगत उपयोगिता प्रगति से संबन्धित है धार्मिक संस्कृति अंधविश्वास सर्वोच्च शाक्ति से। सर सैयद अहमद खान जब तक विज्ञानिक संस्कृति धार्मिक संस्कृति में नहीं आता तब तक वह धर्म मृत के समान है

पहला संघर्ष जो की 13 वी सदी का है चर्च का मानना था कि पृथ्वी सौरमंडल के केंद्र में स्थित है पूरे ब्रह्मांड में पृथ्वी में ही जीवन संभव है और उनकी व्याख्या बाइबल से संबंधित थी किंतु कॉपरनिकस ने अपने अनुसंधान के बाद पृथ्वी को सौरमंडल का केंद्र नहीं माना अपितु सूर्य सौरमंडल के केंद्र में स्थित है ऐसा विचार प्रकट किया इस बात से चर्च में कॉपरनिकस के विरुद्ध विरोध होने लगा और कोपरनिकस को आजीवन समाज निकाल की सजा सुनाई गई यह उस समय का अंधविश्वास था जिसे आज गलत साबित किया जा चुका है।

ब्रूनो ने सिद्धान्त दिया की बसे हुए संसारों की संख्या अनन्त है, और ब्रह्माण्ड का कोई आरम्भ और कोई अन्त नहीं है,
ब्रूनो ने बताया कि बहुत-से ग्रह सूर्य के चारों ओर घूमते हैं मनुष्य नये तथा अनजान कई अन्य ग्रहों का पता लगा सकता है। उसकी यह बात सच भी निकली। ब्रूनो की मृत्यु के लगभग दो सौ वर्ष बाद ऐसे अनजाने ग्रहों में सबसे पहले यूरेनस का, और कुछ समय बाद, नेप्चून और प्लूटो ग्रहों का तथा दूसरे सैकड़ों छोटे-छोटे ग्रहों का पता लगा। उस समय
धार्मिक विश्वास के चलते इन्हे जिंदा जला दिया गया था किंतु यह भविष्यवाणी अब सच साबित हुई हैं

दूसरा संघर्ष एक और अंधविस्वस् पर हैं जो की ईश्वरीय आस्था पर हैं अर्थात आप ईश्वर पर विश्वास रखो, वो आपके जरूरत को पुरा करेगा किंतु विज्ञान के नजरिए से ऐसी कोई शक्ति नहीं हैं अपितु जब हम कोई भी चीज गहराई से सोचते हैं तो वह हमारे अवचेतन मस्तिष्क में चला जाता है अवचेतन मस्तिक से जो रेडिशन निकलता है वह हमारे यूनिवर्स से मिल जाता है और वह चीज जिनके बारे में हम गहराई से सोचते हैं वही यूनिवर्स हमारे सामने लाता है जैसे मनुष्य की शक्ति पहले सीमित थी और प्रकृति की शक्ति अनंत थी इसलिए मनुष्य उस



अनंत शक्ति को पूंजी मानकर प्रसन्न करने लगा वैदिक मंत्र आदि इसके प्रमाण हैं और इसी बात को विज्ञान से जोडते हुए मनोविज्ञान ने यह सिद्ध कर दिया है कि मनुष्य अनंत शक्ति का भंडार है विचारों और भाव में इतनी शक्ति होती हैं कि इतनी शक्ति तो तलवार में भी नहीं होती है, धर्म का आधार भी यही विचार और भाव है ।

यदि हम धर्म और विज्ञान के रिश्ते की बात करें तो ना ही धर्म बुरा है ना ही विज्ञान संसार की कोई वस्तु बुरी तब होती है जब हम उसका जानबूझकर दुरुपयोग करते हैं विज्ञान और धर्म उस समय हमें हानि पहुंचाते हैं जब हम उनका जानबूझकर दुरुपयोग करते हैं इस प्रकार

धर्म और विज्ञान दोनों ही एक समान है धर्म के अंतर्गत अनेक विश्वास आ जाते हैं और विज्ञान किसी विश्वास का अनुसंधान कर उसके तथ्यों पर बल देता हैं

बात करे अगर वैज्ञानिकों की तो :

भारत ने जब मंगलयान का सफल प्रक्षेपण किया था, तब इसके तत्कालीन अध्यक्ष राधाकृष्णन की तस्वीर छपी थी, जिसमें वह मंगलयान की सफलता की कामना के लिए एक मंदिर में पूजा करते दिख रहे थे। एक अमेरिकी विश्वविद्यालय ने कुछ देशों में विज्ञान और धर्म के रिश्तों पर एक अध्ययन किया। इस अध्ययन से पता चला कि आम जनता के मुकाबले वैज्ञानिकों में धर्म की मान्यता कम है, लेकिन काफी बड़ी संख्या में वैज्ञानिक धार्मिक होते हैं। भारत, इटली, ताईवान और तुर्की में आधे या आधे से ज्यादा वैज्ञानिक धर्म में आस्था रखते हैं।

कुछ धर्मिक परम्परा जिसमे विज्ञान की भी झलक नजर आती हैं अर्थात विज्ञान को प्रत्यक्ष या अप्रत्यक्ष रूप से स्पर्श करता है जैसे

कर्ण छेदन की परम्परा :

भारत में लगभग सभी धर्मों की परम्परा में कान छिदवाने की प्रथा है। और इस धार्मिक आस्था को विज्ञान से जोड़ कर देखे : दर्शनशास्त्री मानते हैं कि इससे सोचने की शक्ति में वृद्धि होती हैं और चिकित्सक का मानना है कि इससे बोली अच्छी होती है और कानों से होकर दिमाग तक जाने वाली नस का रक्त संचार नियंत्रित रहता है।

भोजन का आरंभ तीखे से और विराम मीठे से

जब भी कोई धार्मिक या पारिवारिक अनुष्ठान होता है तो भोजन की शुरूआत तीखे और अंत मीठे से होता है।

वैज्ञानिक दृष्टिकोण में तीखा खाने से हमारे पेट के अंदर पाचन तत्व एवं अम्ल सक्रिय हो जाते हैं। इससे पाचन तंत्र ठीक तरह से संचालित होता है। अंत में मीठा खाने से अम्ल की तीव्रता कम हो जाती है। इससे पेट में जलन नहीं होती।

व्रत रखना

भारत के लगभग सभी धर्मो में व्रत रखने की परंपरा है जब इस आस्था को विज्ञान से जोड़ कर देखे :

वैज्ञानिक दृष्टिकोण में व्रत रखने से पाचन क्रिया अच्छी होती है और फलाहार लेने से शरीर का डीटॉक्सीफिकेशन होता है अर्थात उसमें से खराब तत्व बाहर निकलते हैं। शोधकर्ताओं के अनुसार व्रत करने से कैंसर का खतरा कम होता है। व्यक्ति को हृदय संबंधी रोग, मधुमेह आदि भी जल्दी नहीं लगते।

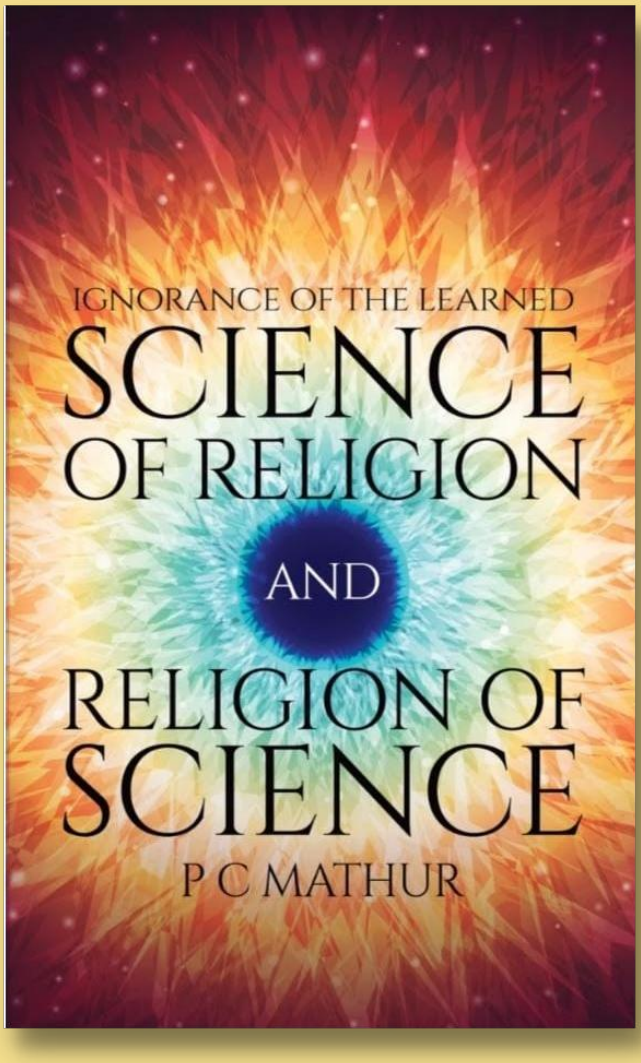
उत्तर की ओर सिर करके सोना

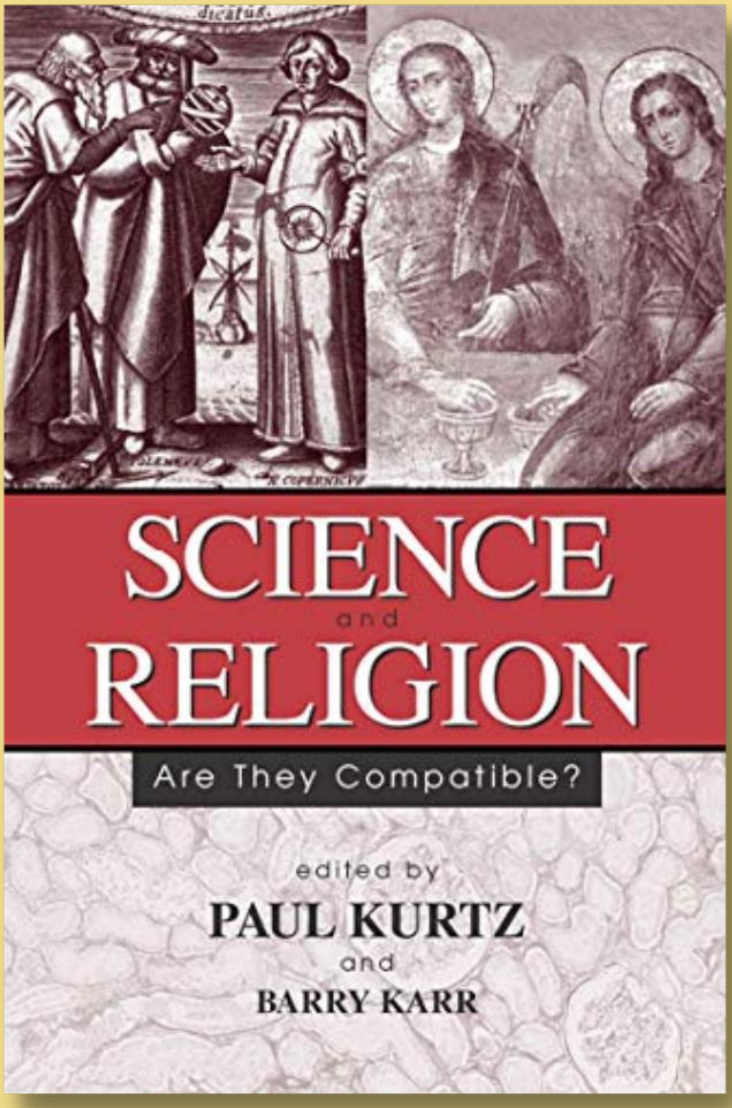
कोई उत्तर की ओर पैर करके सोता है तो लोग कहते हैं कि बुरे सपने आएंगे, भूत-प्रेत का साया आ जाएगा आदि।

विज्ञानिक दृष्टिकोण में जब हम उत्तर दिशा की ओर सिर करके सोते हैं तब हमारा शरीर पृथ्वी की चुंबकीय तरंगों की सीध में आ जाता है। शरीर में उपस्थित आयरन अर्थात लौह दिमाग की ओर संचालित होने लगता है। इससे अल्जाइमर, पार्किंसन या दिमाग संबंधी बीमारी होने का खतरा तथा रक्तचाप भी बढ़ जाता है।

विज्ञान और धर्म के माध्यम से मानव क्षमता का विकास।

जैसे व्यक्तिगत विकास ,राष्ट्रीय विकास विदेशी संबन्ध, राष्ट्रीय सुरक्षा





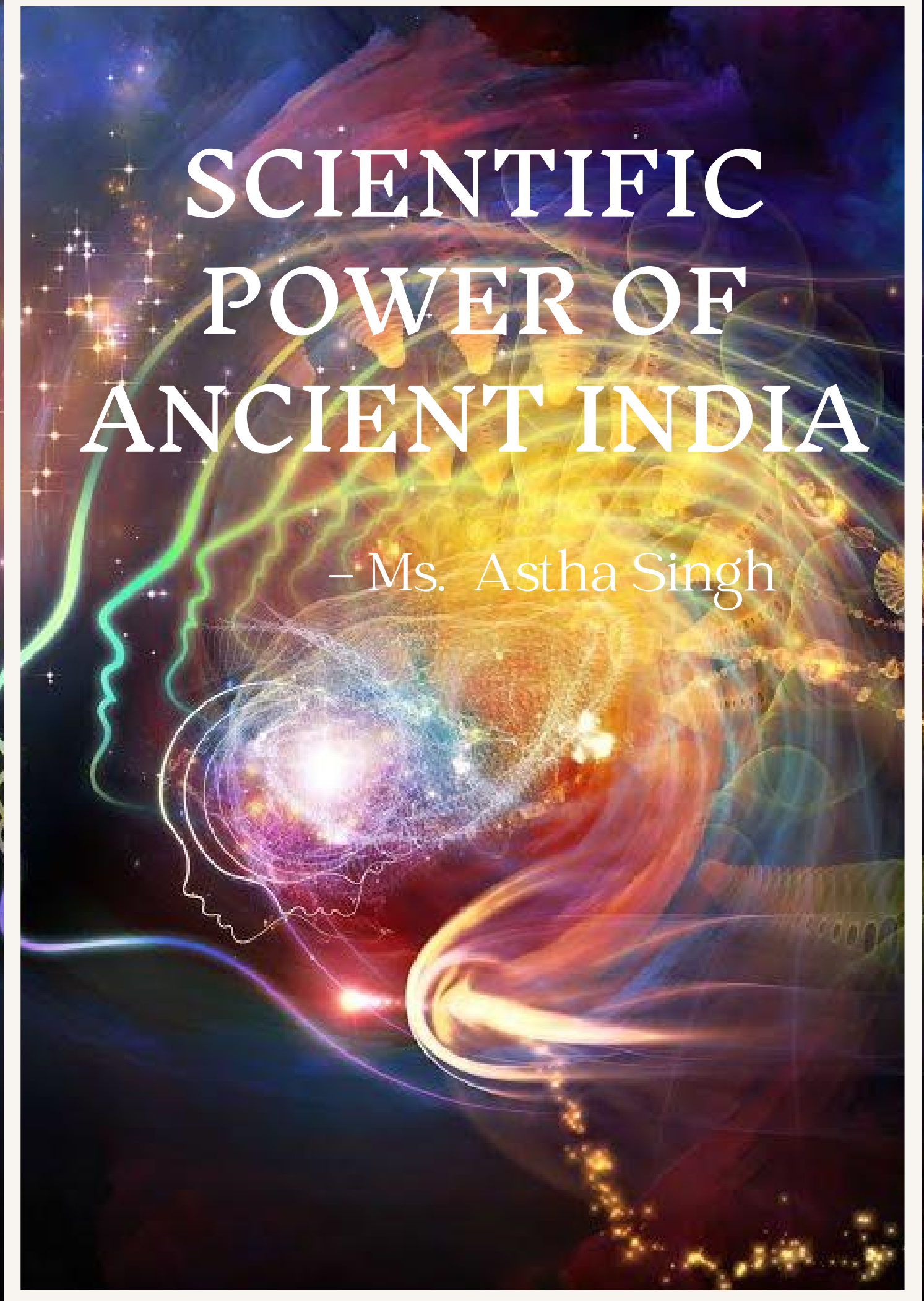
विज्ञानिक युग मे जहा विज्ञान मानव के कल्याण और उसकी क्षमता में विकास करने के नय नय मार्ग का निर्माण कर सकता है तो वही धर्म भी मनुष्य में मनुष्यता को बनाए रखने के लिए अपना पुरा योगदान दे सकता हैं बस बात हैं भिविन्न दृश्टिकोण की वरना कोई भी धर्म हमे आपस मे लड़ना नही सिखाता। धर्म के नहीं होने पर मनुष्य आसमान में भटकते दिशाहीन बादलो की तरह नष्ट हो जाएगा। मनुष्य को नष्ट होने से बचाने के लिए ही धर्म की आवशयकता है।

जहा राष्ट्रीय विकास के लिए विज्ञान ने अपना भरपूर योगदान दिया है नई सड़के नया संचार यात्रा के साधन इत्यादि में अपना योगदान दिया है वही धर्म हमें सिखाता है समाज की हर वस्तु पर सभी लोग का अधिकार है और राष्ट्रीय विकास तभी संभव होगा जब विज्ञान के द्वारा दिए गए किसी भी संसाधनों का उपयोग हम अपने साथ साथ ओरो को भी करने का पुरा अवसर दे , एक दूसरे को सहयोग दे।

विज्ञान ने देश की प्रगति के लिए आज ऐसे संचार का निर्माण किया है कि हम अपने देश में होकर पड़ोसी देशों के हाल-चाल एवं उनकी स्थिति का पता लगा सकते हैं इसमें धर्म कहता है कि यदि हमारा पड़ोसी देश किसी खतरे में है इसी परेशानी में हम उसका भरपूर सहयोग करेंगे और यदि या पता चले कि पड़ोसी देश आक्रमण के लिए योजना बना रहा है तो हम उसकी योजना को विफल करने के लिए जोरदार कोशिश भी करेंगे

जिस प्रकार विज्ञान ने देश की सुरक्षा हेतु अलग अलग प्रकार के शस्त्र और औजार और परमाणु बम इत्यादि का निर्माण किया है उसी प्रकार धर्म मे कहा गया की हमें खतरनाक चीजों का इस्तेमाल करने से पहले अपने उन बेगुनाह लोगो के बारे में विचार करना चाहिए और ऐसी चीजों का प्रयोग करने से पहले ,हमें पहल नहीं करनी चाहिए राष्ट्रीय सुरक्षा की बात करें तो धर्म कहता है कि हमें सुरक्षा को प्राथमिकता देनी चाहिए अर्थात देश की सुरक्षा मानवता की सुरक्षा , इस प्रकार विज्ञान को धर्म से यह सीखना चाहिए कि देश की सुरक्षा को प्राथमिकता देने के लिए हमे विनाशकारी हथियारों की बजाय रक्षात्त्मक हथियारों का निर्माण करना चाहिए अर्थात ऐसा रक्षात्मक कवच जिससे हम अस्त्र-शस्त्र को धराशाई कर सकें और अपने देश की रक्षा कर सकें

अंत में, मैं इस निषर्कष पर पहुची हूँ,की विज्ञान केवल विज्ञानिकता तक सीमित नही है अपितु यह हर जगह समाहित हैं अभी तक जो लोग विज्ञान को और धर्म को एक दूसरे का विरोधी समझते थे उन लोगो का विचार इस लेख का अध्यन करने के बाद पूर्ण रूप से बदल जायेगा क्योकि विज्ञान धर्म से अछूता नहीं विज्ञान और धर्म एक दूसरे के सहयोग से मानव के कल्याय में महत्वपूर्ण भूमिका निभा सकते हैं ।



SCIENTIFIC POWER OF ANCIENT INDIA

– Ms. Astha Singh

SCIENTIFIC POWER OF ANCIENT INDIA

MS. ASTHA SINGH

(GRADUATE CANDIDATE, SLCE, UNIVERSITY OF DELHI)

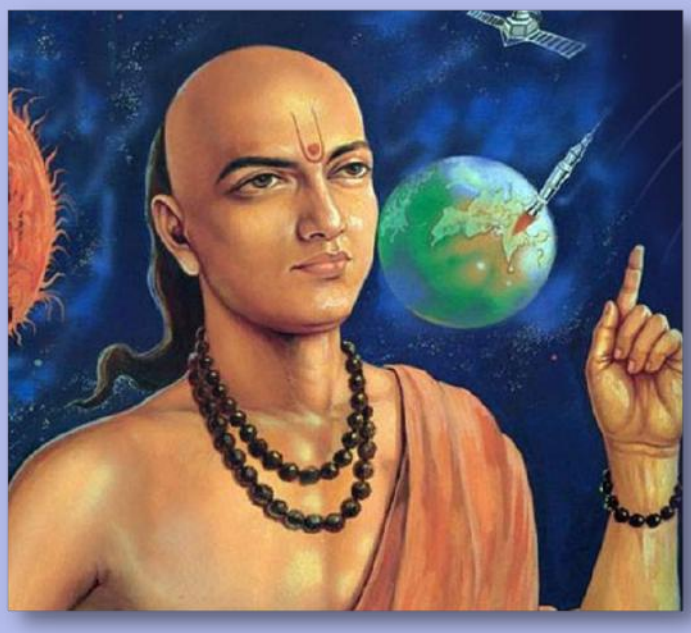
As Mark Twain mused “India is the cradle of the human race, the birthplace of human speech, the mother of history, the grandmother of legend, and the great grandmother of tradition. Our most valuable and most constructive materials in the history of man are treasured up in India only”. Indeed, India is not only a land of different traditions, cultures, and customs but also a land of several scientific values given by our advanced ancestors. If we dive deep into the ancient history of India, then we come to know that our ancient India was a land of sages and seers as well as a land of scholars and scientists. Ancient India gave the world several significant sciences and tech discoveries, like - The idea of zero, The decimal system, Numeral notations, Binary numbers, Heliocentric theory, Wootz steel, Plastic surgery, Ayurveda, and many more. India has contributed a lot in every field, whether it is the field of mathematics, Astronomy, Science, medicine, Ayurveda, and Yoga.

Now, Let's discuss various ancient Indian scientists and their achievements one by one.

Mathematics and Astronomy

In the field of mathematics and astronomy, you will be surprised to know that many theorems and concepts of modern mathematics were known by ancient mathematicians but did not get recognition due to the lack of proper documentation and publicity. For example, an ancient Greek mathematician Euclid is very famous in his field but a very famous Indian astronomer Baudhyan (He is said to be the original mathematician behind the Pythagoras theorem) did not get that much recognition. He was an Indian mathematician who was born in 800 BC and died in 740 BC. He was the first Indian mathematician who came up with several concepts in mathematics. Baudhyan gave many theorems and concepts that were later rediscovered by the western world. He was the first mathematician to calculate the value of Pi and also provided equations similar to the Pythagoras theorem in his book Sulba Sutra, much before Pythagoras. Moreover, the Sulba Sutra also contains a geometrical proof for an isosceles right triangle. He has researched circles, squares, rectangles, and triangles as well.

And the next scientist you must have heard of is Aryabhatta. He independently calculated the value of pi at 3.1416. He was not only a mathematician but also an astronomer, astrologer and physicist of the fifth century AD. At the age of 23 Aryabhatta authored a book named Aryabhatiya which was a collection of advanced mathematical concepts and this book has four distinct sections namely Gitikapada, Ganitapada, Kalakriyapada and Golapada. It

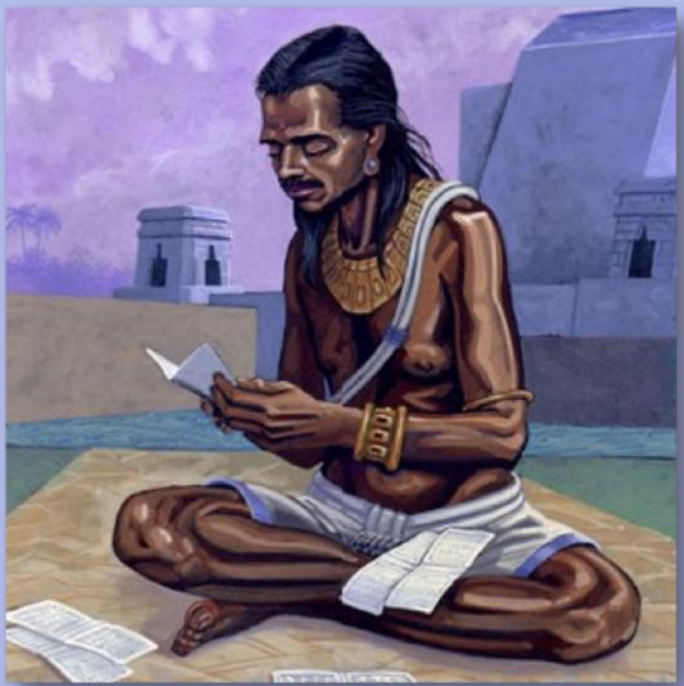


ARYABHATTA

was a treatise on the Decimal system, Number theory, Geometry, Trigonometry, Algebra, and Astronomy. The invention of Zero was his most notable contribution in the field of mathematics. It led him to calculate the distance between the earth and the moon. Aryabhatta gave a very important hypothesis on our solar system that was later proved true. Based on an astronomical observation he said that the earth is movable and is a spherical body rotating on its axis. He also gave the concept of Heliocentrism according to which all the planets revolve around the sun and gave the explanation of the solar and lunar eclipses. After which people got to know that these eclipses were not the work of Rahu Ketu and demons. The first Indian satellite that was launched in 1975 was named after Aryabhatta because of his remarkable contribution to the field of science.

BHASKARACHARYA

Now, let's talk about Brahmagupta who was born in the 7th century AD. He took mathematics to new heights. He used multiplication techniques similar to modern methods and also introduced zero-related operations in mathematics. Arabs learned the Indian mathematical system through Brahmasphutasiddhanta, a book authored by Brahmagupta. Various instruments are also mentioned in this book that was used by astronomers for reading.



BRAHMAGUPTA

Our next mathematician is Bhaskaracharya who was born in the 12th century AD in Bijapur district, Karnataka was the leading mathematician of that time. Bhaskaracharya authored Siddhanta Shiromani, a masterpiece of arithmetic, algebra, sphere, and mathematics of planets. James Taylor translated his arithmetic section Lilavati into English through which the world got to know the brilliant mathematical concepts of Bhaskaracharya. He invented the Cyclic Method to solve algebra, which was later popularized as the inverse cyclic method by Europeans. Jain Guru Mahaviracharya, in 850 AD authored Ganit

Sara sangraha, an algebraic treatise, much similar to modern algebra textbooks. He invented the same method of calculating LCM much before John Napier.

Science

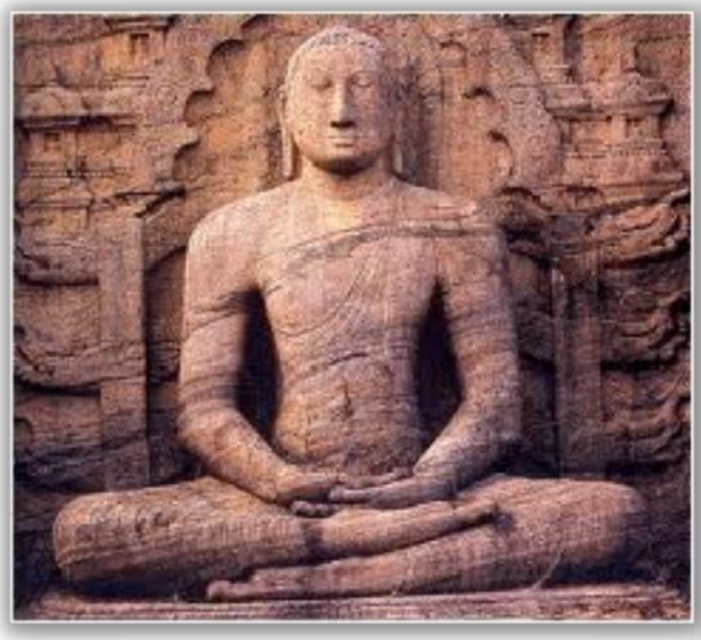
Along with mathematics and astronomy, ancient Indians also contributed to the field of science. If we talk about science, Kanada comes first. He was born in the 6th century BC and his real name was Aulukya. He was very much interested in minute particles since his childhood due to which he was known as Kanada and the surprising part is that he gave atomic theory about 2600 years before Dalton and his theory was very much similar to modern atomic theory. Born in the 6th century AD, Varahamihira is another well-known and very famous ancient Indian scientist. He did great work in the field of Hydrology, Geology, Ecology, and Astrology. Varahamihira identified flora and fauna to help locate Groundwater. Apart from this, he wrote a complete chapter on earthquake prediction in his very well-known book Brihat Samhita and also authored a book Panchasiddhantika which describes 5 Astronomical systems.

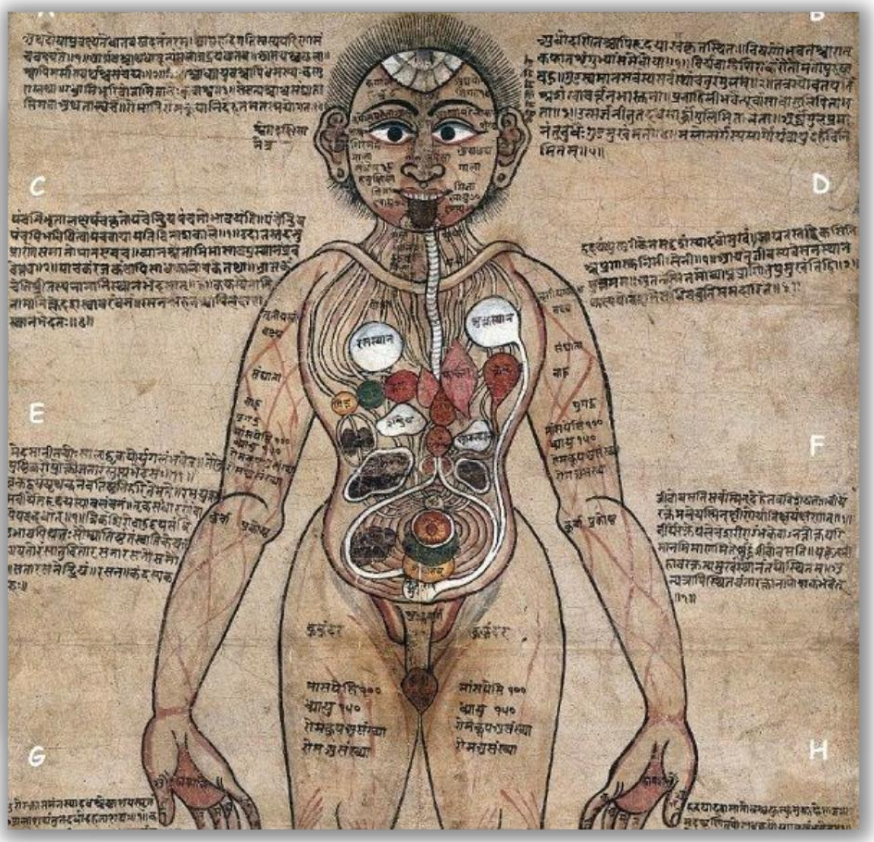
In the field of chemistry, Nagarjuna is very famous due to his outstanding work in the field of chemistry and metallurgy. Nagarjuna dedicated his whole life to Alchemy. Although he was not completely successful, he developed gold plating technology which is used till today for making imitation jewellery. He provided a masterpiece named Rasaratnakara which contained detailed methods for extraction of metals like gold, silver, tin, and copper. The Iron Pillar in Delhi built during the Gupta Age is the symbol of the mastery of Indians in the field of metallurgy.

Medical Science

Let's talk about medical sciences that are no less than any other sciences. Medicine and surgery are two important divisions of medical science. In ancient India, patients were treated with Ayurveda and surgery as well. Atreya Rishi and Charaka were early propounders of Ayurveda. Atreya Rishi authored Atreya Samhita which is the oldest book on medical sciences. Charaka was also a pioneer doctor of Ayurveda. He was the Royal doctor of Emperor Kanishka. Charak wrote Charak Samhita which provided causes and treatment of various diseases which is relevant till today. In the field of surgery, Sushruta was the best-known surgeon in ancient India. Plastic surgery and cataract surgery or ophthalmic surgery were his specialties. Sushruta wrote a book named Sushruta Samhita which, apart from surgery, mentions more than 1000 diseases and 700 medical plants. But there are some diseases that cannot be cured by Ayurveda and medicine. These diseases are caused by a bad lifestyle and for the cure of such diseases, Yoga came into existence. Yoga focuses on healing without medicine. Patanjali provides a physical, mental, emotional, and spiritual balance of life through yoga. It is based on physical exercise, meditation, and controlled breathing. The word Yoga is derived from the Sanskrit word “Yuj” which means “To unite”. According to the ancient yogic scriptures, doing yoga unites individual and universal consciousness that establishes perfect harmony between mind and body and between human and nature. Due to these benefits of yoga, on 21st June, we celebrate international yoga day. Moreover, the Indus Valley Civilization has revealed evidence of dentistry being practiced as far back as 7000 BC. This advanced and earliest form of dentistry involved curing tooth-related disorders with bow drills operated by skilled bead craftsmen. The reconstruction of this ancient form of dentistry showed that the methods used were very reliable and effective as well.

Thus, it's clear that the progress of science and technology in ancient India has been quite significant. We can say, In the context of scientific achievement ancient India was a Golden age. In addition, many important concepts which were developed in India were transported to Europe by Arabs. And this is validated by not only Indian historians but also other historians from around the world like the British historian Grant Duff who said that "Many of the developments in the science and technology that we consider today to have been made in Europe were in fact made in India centuries ago".





FIVE GENERATIONS OF MODERN COMPUTERS

– Mr. Shivam Garg

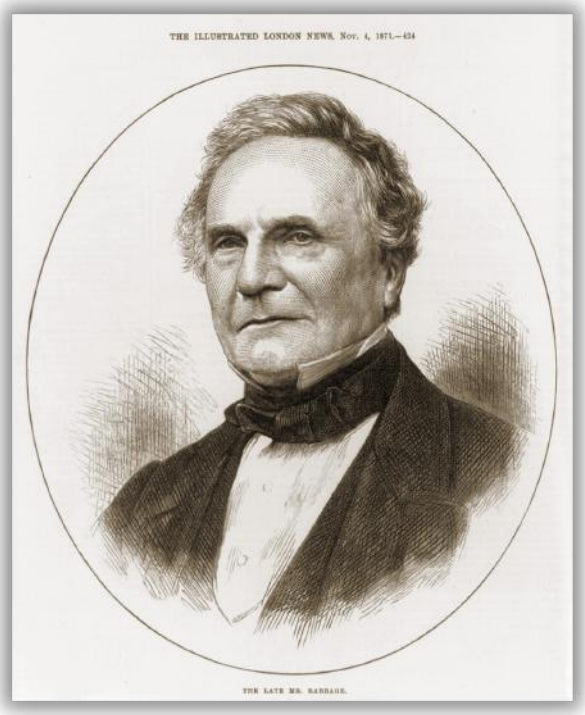
FIVE GENERATIONS OF MODERN COMPUTERS

MR. SHIVAM GARG
(GRADUATE CANDIDATE, IPU)

> Computers are incredibly fast, accurate, and stupid. Human beings are incredibly slow, inaccurate, and brilliant. Together they are powerful beyond imagination.".
>
> - Albert Einstein

Computers are truly staggering machines. The first computer that resembled the modern machines we see nowadays was invented by Charles Babbage between 1833 and 1871. He developed a device, chiefly named, the analytical engine and then worked on it for nearly 40 years. A computer is a Digital electronic machine that can be programmed to carry out sequences of arithmetic or logical operations automatically. Modern computers can perform generic sets of operations known as programs. These programs enable computers to perform a wide range of tasks. In simple words, I will compile that a computer is an electronic device that is used for fast calculations. Some people presume that COMPUTER stands for Common Operating Machine Used for Technological and Educational Research.

We all are aware of how a computer works. We might know who invented it but isn't it fascinating to know the history of computers? There has been the evolution of computers from mechanical devices to the complex and sophisticated devices that they are now.



This riveting part of our lives has become more and more accessible and feasible to use. Even though the developments that paved the way for the creation of computers started very early in the history of mankind, computers in the true sense began to appear from 1940 onwards.

Based on the period of development and the feature incorporated, the computers are classified into different generations-

First-generation (1946-1959):-

In 1946 two engineers at the University of Pennsylvania, John Presper Eckert and John W. Mauchly, built the first digital computer using parts called vacuum tubes. They named their new invention ENIAC. It consists of 18,000 vacuum tubes, 70,000 resistors and 5 million soldered joints.

In this generation, mainly the batch processing operating system was used. Punch cards, paper tape, and magnetic tape were used as input and output devices. The computers in this generation used machine code as the programming language. This generation of computers was unreliable, extravagant, non-portable and consumed a lot of electricity.

Second generation (1960-1964):-

By 1948, the invention of the computers of the transistor greatly changed the computer's development.

The transistors replaced the large, cumbersome vacuum tube in computers as well as in televisions and radios. As a result, the size of computers has been shrinking ever since. The transistors led to second-generation computers that were smaller, faster, more reliable and more energy-efficient than their predecessors.

IBM 1620, IBM 7094, CDC 1604, CDC 3600, UNIVAC 1108 were the supercomputers of that era, which were faster and well-grounded.

Third generation (1964-1971):-

In 1958, Jack Kilby, an engineer with Texas Instruments, developed the integrated circuit (IC). The IC combined three different electronic components onto a small silicon disc, made up of Quartz.

In third-generation computers, high-level programming languages were used such as BASIC, PASCAL, ALGOL-68, COBOL, FORTRAN – II, PASCAL PL/1. Replacing the punch cards, Mouse and keyboards were invented in this generation. In 1964, IBM announced the third generation of computing hardware- its system/ 360 family of mainframe computers. These computers were particularly useful in scientific processing.

The third generation namely, IBM 370, PDP-11, IBM System/360, UNIVAC 1108, Honeywell-6000, DEC series, and ICL 2900 became more definitive for the users.

Fourth generation (1971-Present):-

In 1971, the VLSI technology, or Very Large Scale Integrated (VLSI) circuits, was employed in these computers. As a result, they were dubbed microprocessors. A microprocessor is made up of thousands of integrated circuits that are assembled on a single chip known as a silicon chip or minuscule chip.

This generation produced the first “personal computer,” or PC, developed by IBM. The number of personal computers in use jumped from 2 million in 1981 to 5.5 million in 1982. Ten years later, 65 million PCs were being used.

This generation gave us the gem of the modern technology and network we all know it by the name INTERNET. January 1, 1983 is considered the official anniversary of the Internet. Prior to this, the various computer networks did not have a standard way to communicate with each other. A new communications protocol was established called Transfer Control Protocol/Internetwork Protocol (TCP/IP).

The multiple high-level programming languages we are using today such as BASIC, PASCAL, COBOL, FORTRAN, and C, were developed in the fourth generation. The first Graphics user interface (GUI) was created by Alan Kay and Douglas Engelbart at Xerox PARC in 1981. Computers developed in this era are IBM 4341, DEC 10, STAR 1000 and PUP 11.

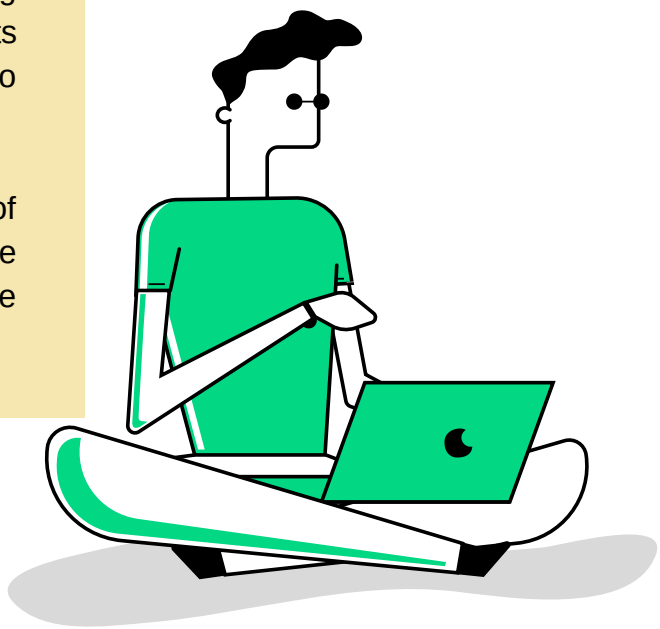
Fifth-generation (Present and beyond):-

This generation is based on artificial intelligence. The aim of the fifth generation is to make a device that could respond to natural language input and are capable of learning and self-organization.

Artificial intelligence has the ability to illustrate the means and method of making computers think the same as human beings. In this generation, all kinds of high-level languages such as C and C++, .net, java, python and more are used. IBM's Watson, as a contestant, was featured on the TV show Jeopardy, which is a more common example of artificial intelligence in computers. Other examples that used AI are: in Windows 8 and Windows 10 computers, Microsoft's Cortana and Apple's Siri on the iPhone. Also, AI is used by the Google search engine to process user searches. Other examples included: Ultrabook, Chromebook, Notebook, Desktop and Laptop. The most famous example of a fifth-generation computer is the fictional HAL9000 from Arthur C. Clarke’s novel- A Space Odyssey, 2001.With the increase in demand for computer technology, the use of networks is increasing. 4.95 billion people around the world used the internet in January 2022 – equivalent to 62.5 percent of the world's total population. ‘The total number of internet users around the world grew by 192 million in the past 12 months – more than 500,000 new users each day. The world’s internet users will spend more than 1.4 billion years of combined human existence online in 2022’

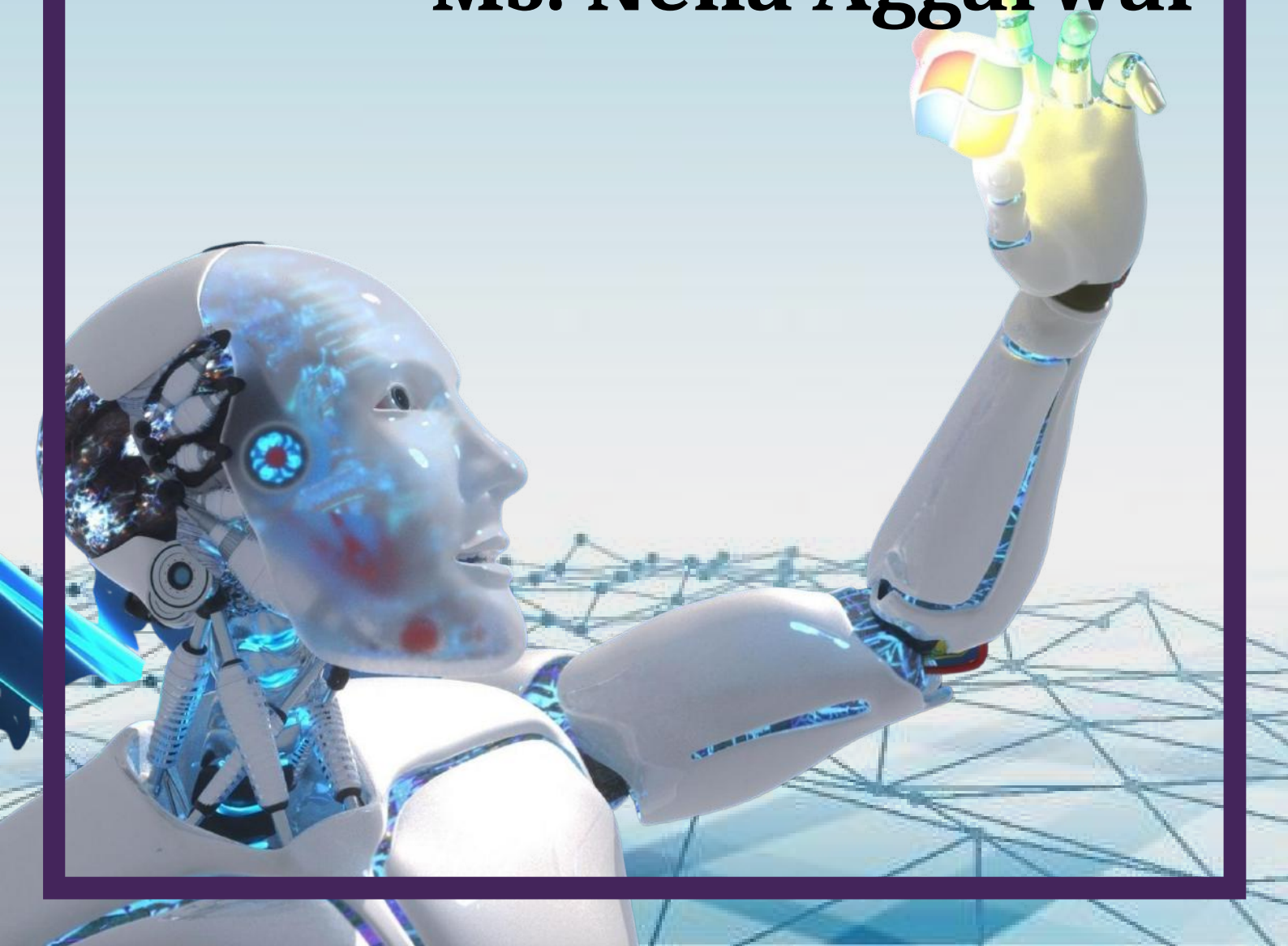
(Digital Around the World — DataReportal – Global Digital Insights, n.d.).
Computing began at the mechanical level, added an information level (software), then a human level and finally a community level; it is an example of general system evolution. ... As computing evolves to higher system levels, so its design also changes, from technical to socio-technical design

The history of this engrossing tool of today's time that is used widely for the businesses of both small and large scale is as much important as tool itself.



TECHNOLOGY: A DOUBLE-EDGED SWORD

- Ms. Neha Aggarwal



TECHNOLOGY: A DOUBLE-EDGED SWORD

MS. NEHA AGGARWAL

(GRADUATE CANDIDATE, SPMC, UNIVERSITY OF DELHI)

> Any sufficiently advanced technology is indistinguishable from magic.
>
> - Arthur C. Clarke

In today's modern world, Technology has aided humans in improving food supply, clean water, and comfortable housing, as well as boosting and improving health, transportation, communication, and other sectors of the human economy. We are living in an age of rapid change, where on one hand, technological advancements are revolutionizing the way we live, but on the other hand digging us deeper into the catastrophe in the form of climate change, disruption in the ecological cycle, and resource scarcity. Global Footprint Network argues that at present, we are using resources and ecosystem services as if we had 1.75 Earths, and such an ecological overshoot is only possible for a limited time before ecosystems degrade and, eventually, collapse.

The Industrial Revolution resulted in extraordinary gains in financial prosperity. Between 1870 and 1910, per capita income in the United States increased by nearly 40%, while manufacturing output increased seven-fold. Nonetheless, rapid industrialization left behind darkened noontime skies, noisy and dangerous machinery, and severely degraded living conditions, darkened noontime skies, noisy and dangerous machinery, and severely degraded living conditions.

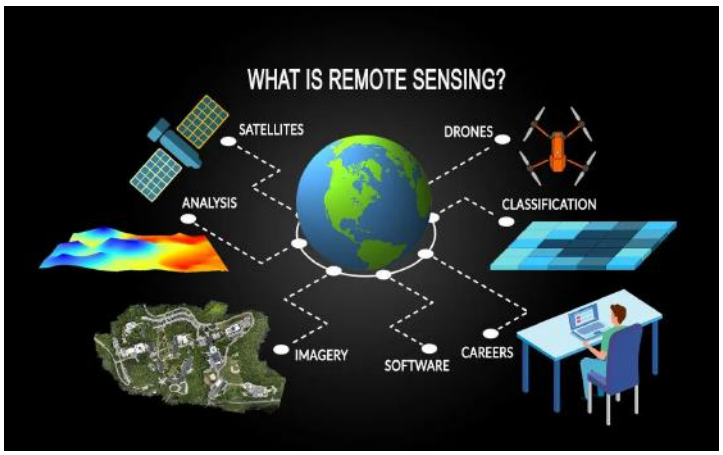
The technological advancements that emerged following the industrial revolution have highly damaged the world. The main sources of water and air pollution such as the burning of fossil fuels, factories, power stations, mass agriculture, vehicles, domestic waste, industrial effluents, and insecticides and pesticides are linked to technological advancements in some or other way. Aquifer depletion, deforestation, soil erosion mainly occur as a result of agriculture, mining, water usage, and consumption of fossil fuels, all of which have been enabled by advancements in technology.

Plastic pollution is another harsh reality. National Geographic found that 91% of all plastic that has ever been made is not recycled, representing one of the most serious environmental problems of our lifetime. Deforestation has never been more severe, with the World Bank reporting a net loss of global forest of 1.3 million km2 between 1990 and 2015. If deforestation continues at the present pace, forests would all be gone in less than 100 years. An increase in technology makes it possible to build many houses within a short span has led to the extinction of species.

More than one million species are on the verge of extinction, people have significantly altered 75% of the world's land and 66% of the world's marine ecosystem, and global temperatures are anticipated to rise by 2.6°C and 3.9°C. Thus, it is clear that every day, new evidence of unsustainable environmental impact emerges.

Undoubtedly, the use of technology in the past has tended to affect the environment negatively. But, having contaminated the earth, air, and water for more than a century, technology is now showing promise in environmental cleanup. Today as our civilization faces a new unprecedented challenge, scientists are making attempts to position technology to decouple development and environmental degradation. In 2018, the WWF in Australia, Fiji, and New Zealand joined forces to use blockchain technology to combat illegal fishing and slave labor in the tuna fishing industry. .

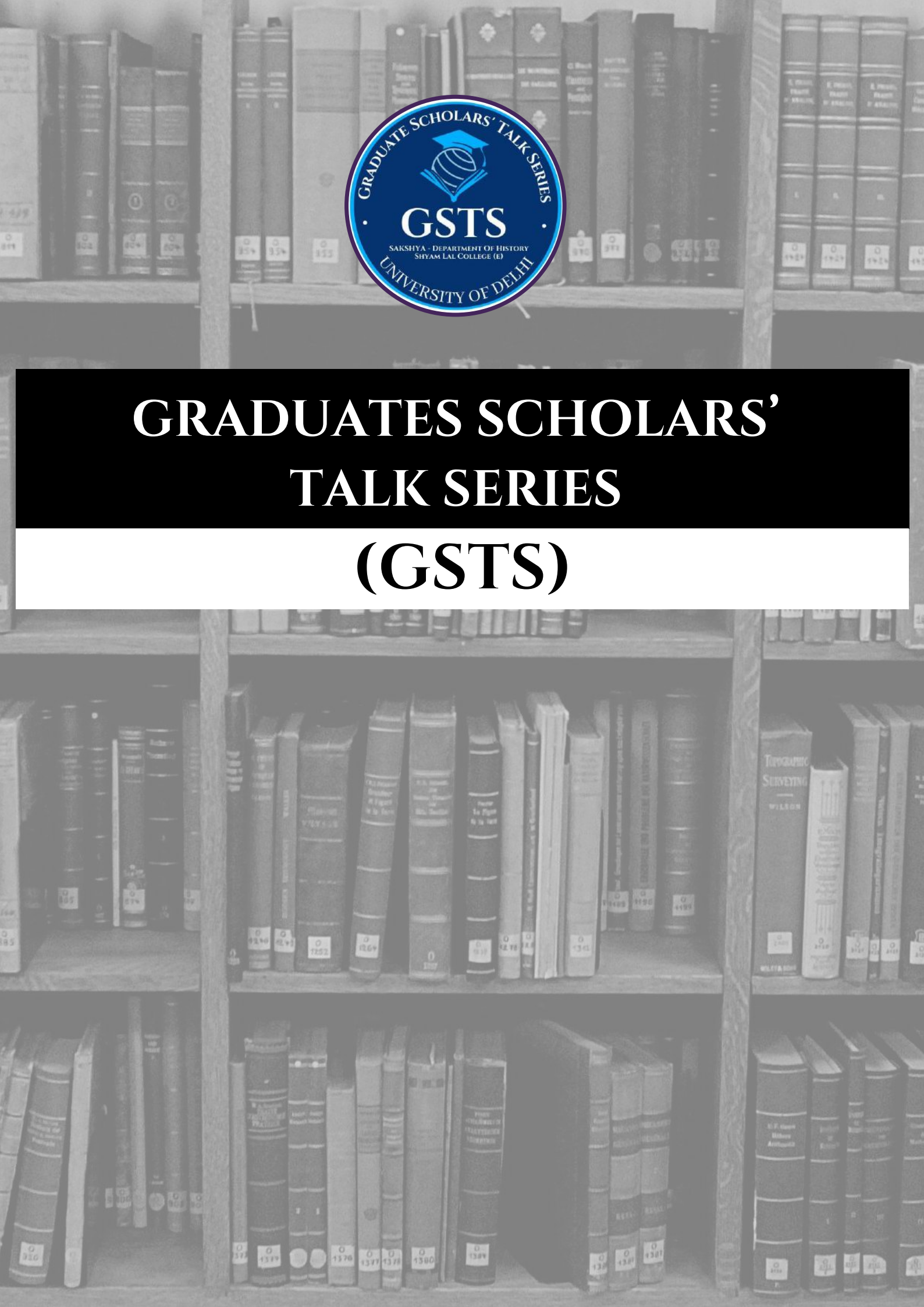
On land as well, remote sensing has enabled WWF to monitor the developments of extractive industries in socially and ecologically sensitive areas, including World Heritage sites. Not only this, technologies of geographic information systems (GIS) using remotely sensed data have enhanced and encouraged precision farm practices using computerized real-time and detailed information about crop health.



Remote sensors are also helping farmers to know which row of crops are suitable for irrigation to ensure better crop yield and reduction of chemicals. Thermal imaging video cameras are helping rangers to catch poachers at record rates and deter many more from even making the attempt. Bioremediation, a technology that involves the “use of microorganism metabolism to remove pollutants” is applied to recover brownfields for development and for preparing contaminated industrial effluents prior to discharge into waterways ultimately improving the quality of water.

From the steel towns of yesteryear to today’s wired cities, the interaction of new technology and its environmental effects has been complex. Technology will always be a double-edged sword, but when properly driven, technology has the potential to restore and heal what it has wounded.

Jacque Fresco has rightly said, “The intelligent use of science and technology are the tools with which to achieve a new direction.” It is time to focus on the solutions that we know exist or have the potential to develop, and this is where technology, in conjunction with behavioral change, can assist us in rebooting the health of our nature and planet. Technology can transform how we identify, measure, track, and value the many services and resources that nature provides us, from the high seas to the depths of the world's most dense forests. Technology is assisting policymakers in fashion policies that enable producers and consumers to recognize and internalize the environmental costs of technology, thereby stimulating innovation to clean up the environment. But, alongside the technological revolution, this world needs a lot of ecologically erudite people to sustain it.



GRADUATES SCHOLARS' TALK SERIES

(GSTS)

GRADUATE SCHOLARS' TALK SERIES (GSTS)

JCC-Journal of Continuity and Change by Graduates introduces Graduate Scholars' Talk Series (GSTS), a weekly talk series, another initiative by Sakshya, the society of History department of Shyam Lal College, Evening. This talk series was started on February 7, 2021 (Sunday) and has been happening every Sunday since on 'Google Meet'. It is an online platform provided to graduate students to talk about a certain topic of their choice. This series is started in order to voice the ideas and opinions of the students, to enhance their orating, thinking, and researching skills, and to boost confidence among them. All the participants get a participation certificate and an award is given to the SPEAKER OF THE MONTH selected by the GSTS panel.

All the talks are available on YouTube:
https://www.youtube.com/channel/UCJwsPI6cEQn8mwcNZYvKc-w

To register to participate in GSTS:
https://docs.google.com/forms/d/e/1FAIpQLSdWuvkQcAyCTgVR-GopiTd9nWHg1rt3MU6LPVsUxwZNYZzaxQ/viewform

JCC will feature the works of the participants of GSTS. The participants featured in JCC 8th issue are-

- Ms. Jahanvi Singh - FOOD HABITS IN ANCIENT INDIA
- Mr. Shivam Bansal - ADDRESSING ISSUES OF IITIANS
- Mr. Mohit Sharma - REALISM OF ENTREPRENEURSHIP

FOOD HABITS IN ANCIENT INDIA

Ms. Jahanvi Singh

(Graduate Scholar, kalindi college, University of Delhi)

> Statements like "we are what we eat''; 'Roti, Kapda aur Makaan'' clearly reflect the role food plays in our lives, but why and how are we eating what we are eating today? Where does the basis lay of the food practices we follow today?

Prehistory represents the longest part of the human past and is associated with the emergence of anatomically modern humans and important developments in stone tools technology and subsistence strategies. But when thinking about the earliest human beings belonging to the prehistoric era, we only imagine some hunter-gathering societies or people of the stone age, which is not completely wrong either because even the hearsay has some reality in it. But did our ancestors immediately start killing or hunting for their meal requirements or did they discover it slowly with numerous experimentation? This is the question that can only be answered while looking at the pace of evolution in their existence.

After the Hominid phase diverged into two categories and humans got separated from apes is generally believed to be the time when meat entered the diet of humans, who fall in the category of HOMO SPECIES.

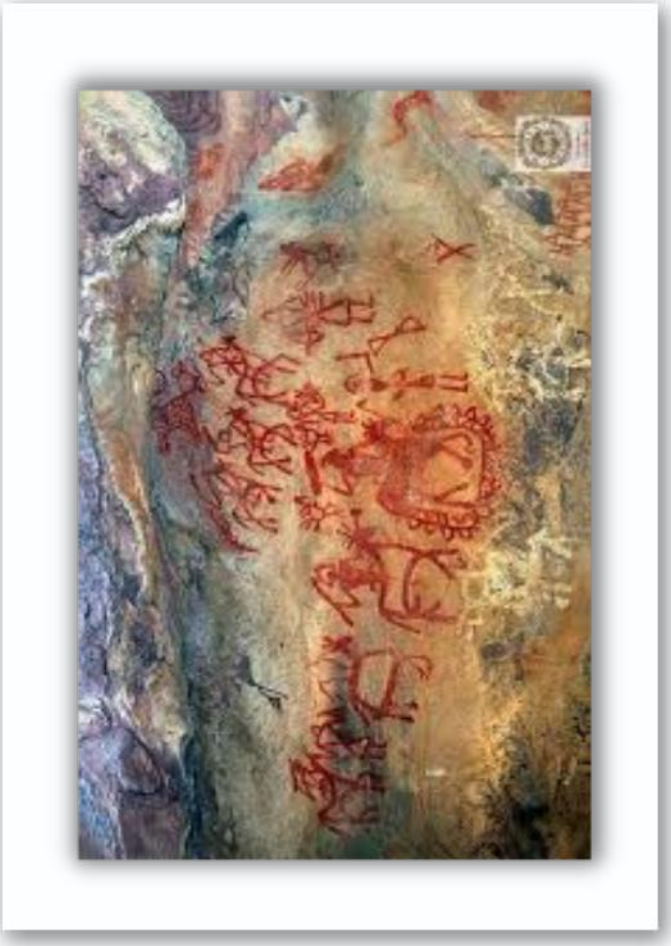
But fruits were considered to be present and consumed even before and after the divergence. Based on cultural sequence, the Stone Age is divided into – Paleolithic, Mesolithic, and Neolithic ages. While all these ages don't have a definite time period, they can still be seen under the time period of approximately 2 million years ago till 8000 years. Paleolithic was predominantly a society that shows evidence of a typical hunter-gathering society from all its phases of – lower, middle and upper in the Indian subcontinent. Focusing on the Mesolithic, it was an era of new budding technology for tools, namely with the founding of "Microliths", which thus marked an evolution in the making of stone tools.

Perhaps affixed to wooden handles, microliths yielded scrappers, spearheads, knives, scythe, which of course enlarged the possibility of using vegetable foods, and gave food-gathering a new dimension.

Paintings and engravings at Bhimbetka are significant sources indicating the subsistence practices of early people suggesting the hunting practices and the types of animals suspected to be consumed. Animal scenes like – the chital, leopard, tiger, elephants, panther, antelope, deer, squirrel, etc… many kinds of birds, fishes, lizards, frogs, crabs, scorpions were found too. Division of labor, as a concept appears from Bhimbetka paintings, showing men mostly hunting and women grinding or kneading something.

The Neolithic age is known to have been the highly revolutionary age with immense changes in diet and subsistence practices and as the zenith since the formation of civilizations must have come into existence. Farming became a process, fire was used for various purposes including cooking and baking and a shift from hunting-gathering to the domestication of plants and animals along with an overall increase in carbohydrates consumption, could be estimated.

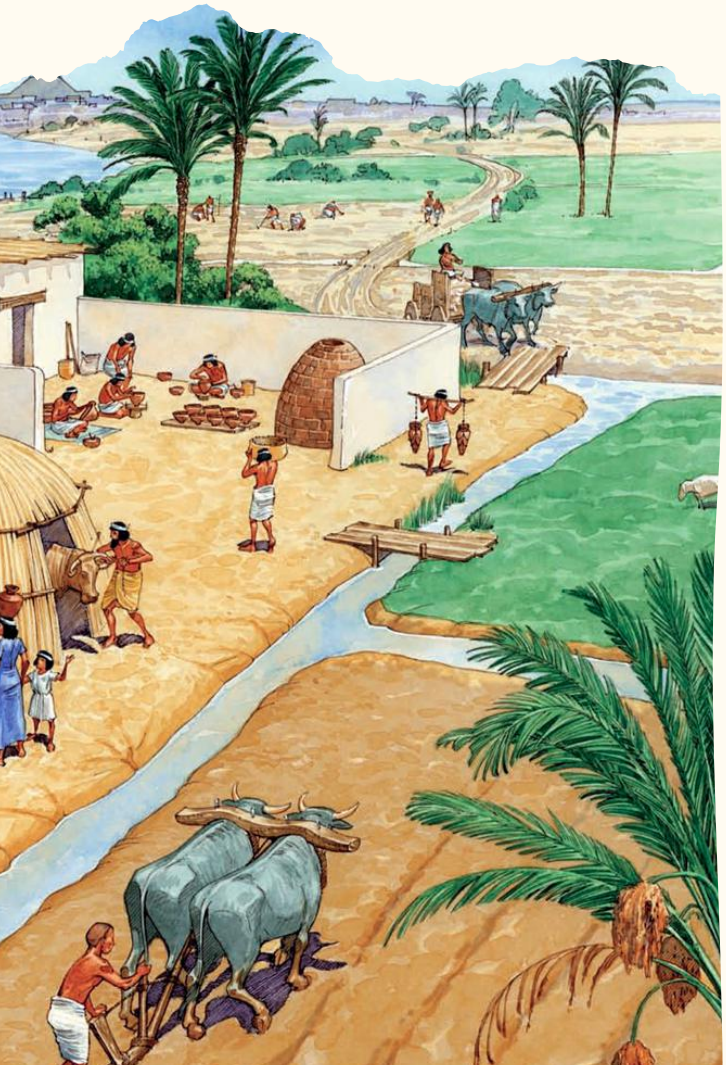
Similarly in Harappan or Indus Valley Civilization, people consumed both animal and plant-based products. Archaeological pieces of evidence of wheat and barley can be traced. Other important ingredients probably consumed by Harappan people included – turmeric, ginger, garlic, linseed and mustard oil. Meat must have also been consumed by Harappan people as the evidence of buffaloes, sheep, goat and wild boar have been found and the coastal location reflects the good percentage of fish products in their diets.



A tandoor like article was also found, probably used for making loaves of bread, which was perhaps an impact of the Mesopotamian trade.

Further arriving at Vedic age dated nearly from 1700 till 600 BCE, the lengthy text called as The Vedas acts as a good source to know about the dietary practices and a majority of it is reflected in Rig Veda – suggesting that ghee (clarified butter), cow's products (PANCHAGAVYA), animal sacrifices and Soma ritual (including intoxicating substance) were highly prevalent in the Vedic Age.Atharva-Veda can be seen as a founder of a contemporary highlighted lifestyle that is being adopted by the people, i.e. Ayurveda. Sushruta, Charakha and Vagbhatt's work are important sources to know more about the Ayurvedic lifestyle. Extreme focus is given on the concept of "digestion" in Ayurveda and the six basic tastes or RASAS (sweet, sour, salty, bitter, pungent and astringent) should be inculcated in every day's meal to achieve an ideal stage of balance diet and emphasis is given to consume only seasonal foods.

“Without proper diet, medicines are of no use and with a proper diet, medicines are unnecessary”, says Charakha and even though one must not blindly accept such sayings, one cannot even claim them to be completely wrong unless experienced individually.From 600 BCE till the fall of the MauryanEmpire in 186 BCE, one of the major turning point in the lives of people occurred due to the appearance of new sects like the Jainism and Buddhism, who mostly supported the idea of Ahimsa (non-violence) and Karma setting a renunciant environment. Although these two were primarily mentioned in the philosophical texts which emerged around the same period known as Upanishads which also talked about the concept of the “food cycle” with the reference that – food, eater and Brahman (cosmos) are interrelated and cannot be separated. Hence, it was the period that saw open challenges posed to the Vedic sacrificial killings and promotion of the idea of vegetarianism to some extent



and that no living being should be hurt. Emperor Ashoka also propagated the same and it is believed that he banned the sacrifices of various animals except a few as a follower of Dhamma.Some of the important sources of the Mauryan period can be traced through the Megasthenes’ Indica, Vishnugupta’s Arthashastra and Jaina and Buddhist texts.

In Indica, it is mostly mentioned that the people under Mauryan Empire lived frugally and hardly drank wine except as a part of a sacrifice.They ate a mixture of rice and thick stew, perhaps a form of dal or curry. There were many varieties of rice found- like black and red rice. Other dishes commonly mentioned include - Odana, a general porridge-like dish made from rice.

Payodana was rice cooked with yoghurt, honey or ghee. Kshiraudana, made with sugar and milk, was like modern-day Kheer. It is estimated that poor people ate Kulmasha, a thick porridge of grains or lentils cooked with little water and flavored with jaggery oil during the Mauryan Empire.

Arthashastra on the other hand directly suggests that alcohol was consumed but a government monopoly existed on it and a rationing system can be traced from the Mauryan period. Fines on poaching were imposed reflecting a non-violence attitude towards animals.

Later, the allegedly and yet disputable so-called “golden age” of the Gupta period from 300 CE till 600 CE saw the emergence of Dharma literature – Dharma Sutras, Dharma Shastra and Manusmriti, perhaps motivated by a desire for stability and the establishment of social norms, caused by the period of political and social uncertainty that followed the disintegration of the Mauryan and Shunga empires, says Colleen Taylor Sen. Dharma literature advocated practices like maintaining a Phalahar (avoiding cultivated grains) diet during fasting and following an absurd notion of “Roti-Beti” - it means eating with someone from outside one's group, which could be the first step towards sleeping with them.Although not a major change in diet can appear immediately, a basic idea about – “What people ate under the rule of Gupta Empire and many other regional empires” can be hinted via the Chinese Buddhist scholar – Faxian’s work, who wrote that people did not kill any living creature or even drank intoxicating drinks, nor they consumed onion or garlic, except that of the CHANDALAS (who were considered the outcastes). And according to the Sangam literature of southern secular work – Black pepper was a significant spice consumed.

This late ancient period is also known for “Brahmanical revival” movements like the – Vaishnavism, Shaivism and Shaktas. But an astounding sect that emerged during the same time was Tantrism, which offered extremely unique subsistence practices and rituals involving the partaking of items and steps incorporated in the notion of “5Ms” including – Madya - Alchohol, Mamsa – meat, Matsya – fish, Mudra - parched or fired grain and Maithuna - sexual coupling. The basic idea behind it was that if everything is made by the divine being then how can anything be termed as right or wrong, hence, some of the rituals in Tantrism are even conducted at a crematorium ground. However, according to Mahanirvana Tantra, the killing of animals should be avoided except for ritual purposes, and only meat sanctified by Tantric rituals can be eaten and alcohol was considered Tara (the mother goddess), herself in liquid form and “Mortals who drink wine with their mind under control are immortals on earth and became like Shiva himself.”

In conclusion, we can say that, though various subsistence practices of ancient times can be seen even in the contemporary world oftentimes no one truly knows the background and origin. Consequently, it is important to give due credit to the “ancient world and practices” which are deemed fine or appetizing enough to be carried down this far.

ADDRESSING ISSUES OF IITIANS

MR. SHIVAM BANSAL
(GRADUATE CANDIDATE, IIT,BHU)

> “You know what they say, "IIT is not an educational institution, it is a way of life.”

The strenuous path of the IIT exam is not just a race in which the winner gets announced at the finish lines.It's a whole journey to a destination and the destination is not just the IITs. During the path, the aspirants achieve a destination every time they tackle a hurdle in their way. JEE isn't just an exam, it's a feeling to every aspirant.

The journey of the IIT exam itself has been very long. If we turn the pages of its past, then we see that it has its roots even before India got Independence. After the end of the Second World War, Sir Ardeshir Dalal from the Viceroy's Executive Council foresaw that the future prosperity of India would depend upon technology (History of Indian Institutes of Technology, n.d.). Therefore, he conceptualized institutes that would train such workforces in the country itself. This is considered to be the first conceptualization of the Indian Institutes of Technology (IIT). Dr. Humayun Kabir played an important role in the establishment of IITs. He encouraged Dr. B. C. Roy, the Chief Minister of West Bengal, to work on Sir Ardeshir's proposal for an IIT.

In 1945, a 22 member committee was set up to prepare a proposal for the set-up of IIT by Dr. Kabir along with Sir Jogendra Singh of the Viceroy's Executive Council (Department of Education, Health and Agriculture), of which Sir Nalini Ranjan Sarkar was made the chairman.

In the Post Independence era, Pandit Jawaharlal Nehru became the pioneer in the establishment of the Indian Institutes of Technology with the sole purpose of providing trained technical personnel of international class to the newly born independent India who would act as future leaders in technology.

In May 1950, the first in the series was established in Kharagpur at the site of the Hijli Detention Camp, where the British had incarcerated political prisoners; the institution was named the “Indian Institute of Technology” before its formal inauguration on August 18, 1951 *(Council of Indian Institutes of Technology — Vikaspedia, n.d.)*. Within a decade of the launch of the first IIT, four more were set up: IIT Bombay (1958), IIT Madras (1959), IIT Kanpur (1959), and IIT Delhi (1961). After that, 10 years later, the sixth IIT was established in Guwahati (1994).

In September 2001, The University of Roorkee, India's first technical institute (formerly known as Thomson College of Engineering) came to be known as the seventh IIT of India. The year 2008, saw the establishment of six new IITs: IIT Bhubaneswar, IIT Gandhinagar, IIT Hyderabad, IIT Patna, IIT Rajasthan, and IIT Ropar, followed by the year 2009: IIT Indore and IIT Mandi. In the early years of the foundation, the IITs were assisted in miscellaneous forms ranging from material assistance to academic cooperation from various developed countries like the Soviet Union, Germany, the United States, and the United Kingdom.

Benefits of IITs:-

●The financial help – scholarships

Institutes like IIT and AIMS not only have fewer fees but are also aided by the government with various scholarship programs for needy students. Thus, the college fee never becomes a burden on students and parents. Moreover, the job security provided is one of the top benefits of studying in top colleges.

●A chance to be taught by the best professors

Top institutes like IIT are the best option for studying science while having some of the best professors for teaching and research work. These brilliant professors give scope to students to learn and excel in various fields.

●An opportunity to meet and study with brilliant minds

Institutes like IIT and IISc give you vast opportunities to learn from some of the most brilliant students in the country and exchange valuable knowledge and experience with one another. According to Sunil Kumar from IIT Guwahati – "In IIT, you will learn more from your peers than the teachers! (Saharan, 2020)"

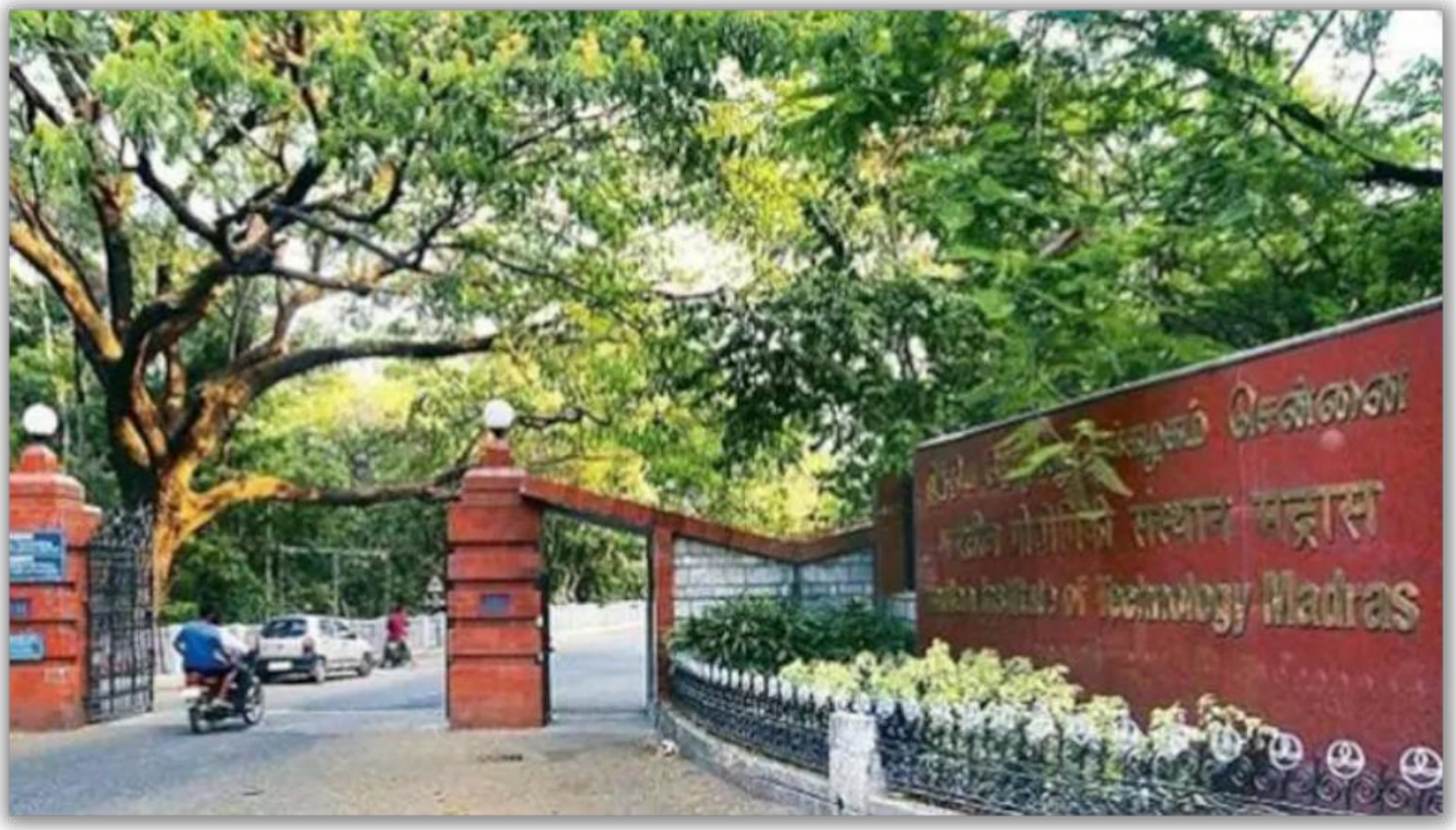
● Internships in some of the best universities around the globe.

IITs, IISc, and NITs also provide their students with beneficial programs like student exchange through which you can study in a reputed foreign university. Students are also given better internships and chances of a project, than anywhere else.

Why the students go out of the country to work:

The paradox at IIT is that the students don't know much about the branches they are going to deal with at college as in the quote "At IIT, you don't choose the branch, the branch chooses you". Almost every student select the branch at the college according to the rank they have got and not according to their interests, actually, the problem is not with the students selecting the branches according to last year's rank cutoffs, but the problem is that they don't have the idea about their own interests, because our education system just makes us capable enough of dealing the pressure and do things or should say study subjects that we aren't even interested at. Funny thing is that every one after studying Physics, Chemistry, and Math for two years dreams of getting the branch of Computer science which kinda ultimately makes studying physics and chemistry useless for them. Actually, the main reason behind students preferring to select the circuital branches is the ease and comfort to get placed at a job with a good package, as there is a high scope of getting placed in this field.

If we talk about the life outside these branches, the college environment, and IIT, then the main concern that the students really face is the work culture here. The money they get paid within India is a lot less than what is paid in the rich foreign countries like America, Canada, Australia, etc., and many are in search of better opportunities and the fulfillment of their exotic lives.



Comparing the growth of NASA and ISRO we can actually see the difference between the working cultures like if we consider the Mangalyaan mission during which the scientists faced a lot of difficulties getting an approval for the mission as ISRO wasn't ready to fund a high amount of money on a mission which didn't have much of an assurance of success. Just because NASA is more inclined to fund money and support innovative and new ideas, it's way ahead of ISRO and these might also be the major reasons for 36% of NASA employees being Indians. The examples of NASA and ISRO stated here are just to make things understandable, why people are inclined to work outside the country Talking about brain drain in the year around 1980s, 37.51% of the engineers went abroad to work and out of which only 6.71% came back to India, leading to 30.8% brain drain. Looking at the present, the percentage of students going abroad is not much in comparison with the old stats, but still we can see a good amount of brain drain in the country.

People must understand that to get something, you always have to give something. To stop brain drain, instead of running from the challenges that they are going to face here in India, they must stay here and fight them. I would also like to add that LORD KRISHNA in Bhagvat Geeta said,"Do not be attached to the fruits of your work, and do not be attached to not doing your duty".

Well, despite the drawbacks there are more positives, that's why every second person wants to go into IIT. The services, the packages all are at par level and there are lot more changes that are being done to make it better and there will be more changes because of the new education policy.

REALISM OF ENTREPRENEURSHIP

MR. MOHIT SHARMA

(GRADUATE CANDIDATE, SLCE, UNIVERSITY OF DELHI)

> Mahatma Gandhi once said – Be the change you wish to see in the world.

This beautiful quote completely justified the way an entrepreneur and entrepreneurship are defined. An entrepreneur is defined as the person who creates a sustainable solution with the aim of solving a problem in society and entrepreneurship can be deemed as the process that is undertaken to make the idea successful.

But a definition without an example does not make sense, isn't it? So let us consider the example of schools for instance. From the industrial age till the ongoing information age our society has seen drastic changes. And schools being the foundation of a country are expected to change with time but they didn't change much. The word education has been stagnant even after so many years. It has been a long time since the dot com crash and global financial crisis hit the world but the Indian schooling system hasn't done much to create awareness about these concepts so in the future students are not ready to face these kinds of things. Yes, we are taught in schools about learning from our mistakes but how are we supposed to learn this from an organization that itself doesn't apply it?

In a nutshell, the main issue with schools that I can analyse here is prioritizing quantity education over quality education. Here considering quality my main focus is on the budding buzz of innovation and creativity because of the Indian start-up culture. A very common but important concept about a startup is that innovation and creativity are the souls of any entrepreneurship idea. And yes because of this loophole we lack behind many countries in education. Not only just lack of innovation but many entrepreneurs find a school as a place for future employees. As Elon Musk says he never went to Harvard the people who work for him did. Speaking about entrepreneurship, things are not as simple as they look. The youth (18-29 years) constitute 22 per cent of India's population, which is more than 261 million people. Therefore we have the advantage of leveraging the skill and ability of our youth to drive the nation forward through productive output and innovation. To achieve this ambition more and more youth is shifting towards being part of the founder's league. And despite going through tough phases of covid waves India had stood out as the hub of budding entrepreneurs.

Some interesting stats are here

►India has the 3rd largest start-up ecosystem in the world.

►India is expecting 12-15 % YoY annual growth in this wave.

►The total no. of unicorns in India to date is 85 with a total valuation of 287.89 billion $.

►1 out of every 10 unicorns globally have been born in India.

►Sequoia has been the most active investor in Indian Unicorns, followed by Tiger Global Management, Accel, and Softbank.

Now, these figures are appreciable as well as dangerous at the same time. Because after looking at these figures misconceptions start taking shelters in mind and these are one of the reasons for the shift of the occupational structure.

Some prominent driving forces about entrepreneurship are as follows:

1. The Unicorn race. - For a Gen Z of India the first thought that comes to mind after hearing startup is a 1 billion dollar valuation. In India talking of 2021 only we have 44 unicorns with a valuation of 90.67 billion dollars. Yes it does sound fascinating as well it is a good figure to achieve but in the race of being a unicorn usually, we concentrate more on fundraising thus customers concentrate more on downgrading your sale.

2.The race to get rich- Warren Buffet mused, "Every upcoming generation will consume more than the previous generation."

Now we can clearly, see this statement coming true. Every person today have different demands not according to their needs but more according to their wants. This urge to buy more and better is causing people to force an idea over the market and try to validate it which cannot sustain for a long period.

You see today start-ups are looking towards valuation rather than value addition. Moreover, Nitin Kamath, founder and CEO of Zerodha in an interview with money control talked about the Entrepreneurship bubble. He started, "we may not time and size the bubble but yes the high ratio of market liquidity is signaling towards its burst..

The Indian start-up stories are quite a mix-up of lows and highs with a lot of anxiety among the masses in accordance with pursuing it as a life goal or not, specifically for the women entrepreneurs. Let's have a glance at some figures in the context:

- As per the Government of India a women entrepreneur is defined as the person who has at least 51% shareholding in a start-up and 51% of the total workforce should be females.
- As per the Sixth Economic Census of India, women entrepreneurs own as many as 8.05 billion business establishments across the country.

Women entrepreneurs hold the key to India's economic growth. As per McKinsey, the country could add up to $770 billion, i.e., more than 18% to its GDP by 2025.

But even after this potential, women continue to face more challenges than men as an added societal pressure of maintaining a work-life balance falls heavy on their shoulders.

What's worse, according to Innoven Capital, a venture debt and lending platform, the number of funded start-ups with at least one female co-founder declined from 17% in 2018 to 12% in 2019.

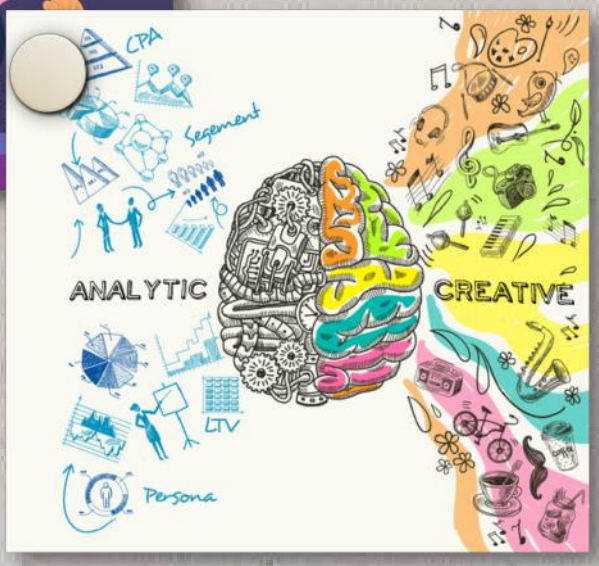
ISome of the major causes of low women participation in the buzz:

o Social constraints being the parent reason compel the women to restrict their life towards homemaking and child caring.

o The lack of safety at the workplace and public.

o Due to financial constraints, they lack the required knowledge for start-ups.

o Underestimation of women's ability to handle leadership roles.



These figures are extremely disheartening. But times are changing and Falguni Nayar founder and CEO of Nykaa is leading the way from the front to break this prejudice against women. She is the wealthiest self-made female Indian entrepreneur with a net worth of 7.5 billion dollars. Besides Falguni Nayar, we have a list that is quite long from Kiran Mazumdar Shaw to Vandana Luthra.

BENEFITS OF ENTREPRENEURSHIP

So looking at entrepreneurship comprehensively adds a whole lot of value to an economy. The best value that start-ups add to the economy is defining new ways to achieve high growth through technology and innovation as the central objective. Moreover, entrepreneurs don't have a ceiling to the extent of earning because of their high concentration on innovation and creativity. Also, job creation has been an important aspect of entrepreneurship. And Indian start-ups have been creating a great pool of jobs in new fields of work. Anurag Jain, DPIIT secretary said on January 6 that 'government registered start-ups have created up to 6.5 lakhs jobs till now. More than 60000 start-ups have been registered by the Government of India since 2016. Thus the figures come at 11 jobs per start-up. One more fascinating element is that work-life balance and office culture is the driving force for the youngsters to choose a job in a start-up rather than a big firm.

But even after so many benefits black clouds still surround the capability of start-ups. Though it's not much of a concern until the 'bubble burst'. But still, there is a slight fear that if history repeats itself as it always does, a whole lot of the population has to suffer due to job layoffs. After so much discussion, now let's come to my original question from the beginning which still lies unanswered. Can school withstand the change?

Firstly as it seems true that schools are connected with creating a job-oriented mindset and it's completed fine to be like that. There is nothing wrong with being an employee. Just the point is that we need little changes to be done with our schooling so that even a 12th-grade child can prove his/her credibility in the economy. Some of the suggestive can be following:

- Considering the higher classes a teacher should have qualifications according to the stream she is going to teach.
- Government should take control of education more vigorously to improve schooling infrastructure.
- Students should be allowed to study a subject of their choice and not based on the score they get.
- Diversify the curriculum to balance theoretical and practical knowledge.

As someone aptly mused "Instead of freaking out about these constraints, embrace them. Let them guide you. Constraints drive innovation and force focus. Instead of trying to remove them, use them to your advantage". This cannot be more true than in the context of entrepreneurship. The most important factor that will play a paramount role in the formation of new entrepreneurs is the simple mindset of being the job-maker rather than the job-seeker. We must see India, especially as a country fit and opportune for the creation of startups. And the responsibility lies upon the young minds like us to come forward with more innovative and tech-savvy ideas to contribute our resources to the economy of the nation.

RECONNAISSANCE

GRADUATE'S RESEARCH PAPER

PERSPECTIVES ON COLONIALISM: A NEW APPROACH

-Mr. Raj Thakur

This paper aims to highlight some important mistakes due to which one gets a blurred understanding of different perspectives on colonialism including, a reader d expecting each of the perspectives to answer why colonialism occurred?

we must know that origin, occurrence, and goal behind the problem are the different things, which perspectives try to answer so this differentiation should be kept in mind.

Perspectives on colonialism: a new approach

Mr. RAJ THAKUR

(Graduate Candidates, SLCE, University of Delhi)

Colonialism ended after the Second World War and surprisingly the newly independent countries were not vocal against colonialism, however, Marxists continued to write against it as they did in the interwar period. Liberals had described colonialism for a long, starting from **JAMES MILL** and after that his son **JOHN STUART MILL**. In 1978 **EDWARD SAID'S orientalism** came into the picture which brought a new perspective on colonialism and this was regarded as the foundational text in the writing against colonialism, thus we have three dominant perspectives on colonialism Marxist, liberal and postcolonial.

But after reviewing a significant corpus on colonialism I came to a conclusion and I want to share a framework to analyze the different perspectives. At first, I want to highlight some important mistakes due to which one gets a blurred understanding of different perspectives on colonialism. The first mistake a reader does is that he or she expects each of the perspectives to answer why colonialism occurred? In addition to this, some of the readers don't even read the perspectives at first hand. Furthermore, I would say that different perspectives are seen by the readers as independent ones but what I propose is that getting a clear meaning requires recognition of the relationship between the three perspectives.

On reading any perspective on colonialism we want to get the ideas like what is colonialism, why it originated, and why it occurred as a process, but one thing we tend to forget is the socio-historical circumstances in which the perspective emerged and what is the reason behind the beginning of such perspective, for example, if we take the liberal perspective then it began to justify colonialism and the circumstances were that in Britain there was a need of remaking, though there was a growth of new morality, the industrial revolution, and Britain's predominance after Napoleonic wars, liberals of the time were not able to implement their policies that is why I have tried to first give a very short and crisp idea of perspectives at first hand.

KNOWING THE DIFFERENT PERSPECTIVES AT FIRST HAND:

- **LIBERAL-**

Liberalism in the empire was basically brought for two purposes. The first is the making of Britain and the second one was to organize the empire. However, liberalism was itself not a coherent doctrine it was the mixture of aristocratic Whigs, tory Peelites, Benthamite utilitarians, political economists, and radicals. Due to this incoherence and the opposition

faced in Britain, their liberal agenda came to a halt when they found India as a laboratory where they could perform the liberal experiments without opposition.

Accordingly, they started devising liberal ideas, and in India all utilitarians, missionaries, political economists started to work together (which they were not doing in Britain).
But what is the liberal perspective on colonialism? It says that the idea of colonialism as a system of subjugation and domination is False, instead, colonialism had a civilizing force informed by Scottish and French enlightenment. An analysis by India or any colonized country denies this civilizing idea but at the same time, they include the liberal experiments even in the Constitution. It might seem contradictory but this is the real scenario. We will come to this later, that how to prove the liberal perspective wrong.

- ## MARXIST PERSPECTIVE-

They have been very vocal against colonialism which is evident from their dominant share in the writings on colonialism. It says that through colonialism people were subjugated and wealth was extracted from colonies to fund the industrialization in Europe. They don't deny the exploiting force of colonialism and their analysis is economic in nature. **VLADIMIR LENIN, R. P DUTT, and KARL MARX.** All three have conceptualized various stages of colonialism:

- Stage of monopoly trade
- Stage of unequal exchange and
- Financial imperialism.

Lenin tried to show that financial imperialism is the highest stage of colonialism.

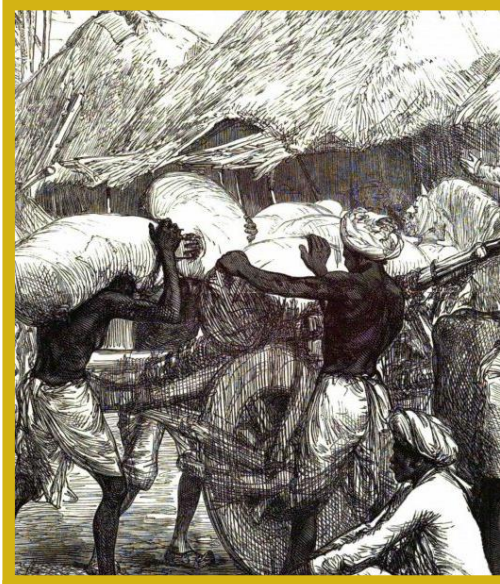
- ## POSTCOLONIAL PERSPECTIVE-

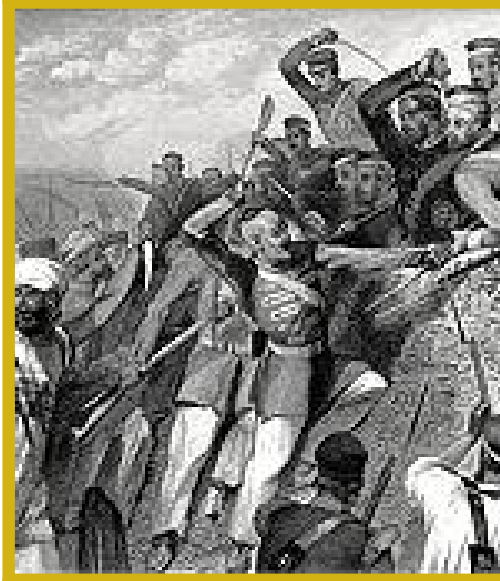
One of the most perspectives on colonialism is this one. It says that colonialism hasn't ended yet, it is still continuing. It takes into account the cultural colonialism whose impact is continuing in the colonized countries **EDWARD SAID** in his book showed how orientalism was used to produce the meaning of orient as inferior and then mechanisms were built to alter the culture of colonies in such a way that it will facilitate the project of colonialism. Later, the works of **HOMI BHABHA and GAYATRI CHAKRABARTY SPIVAK.** Bhabha doesn't agree with SAID, he says *that the monolithic discourse of colonialism is false he also gives his own idea of resistance, which was ignored in SAID's work. GAYATRI SPIVAK highlights how the essentialization of the marginalized is done by Bhabha and Said.*

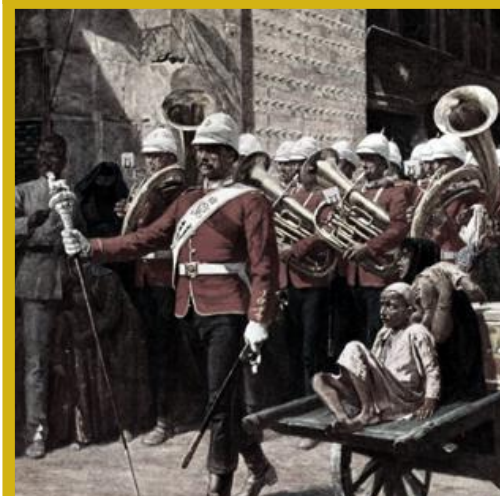
Above, is the organic description of all the perspectives which will help one in not deviating from the main ideas. As I was saying in the starting that a reader faces some theoretical difficulties, so let's see why it happens. It basically happens because when someone reads these perspectives and try to know the what, why, and how of a particular question in concern then he wants to get an objective answer to it, and it is totally fine but the mistake one does is they ignore the basis of comparison for example:- in liberal perspective, they try to get the answer of the question that why colonialism occurred as a process but in Marxist, they try to find why it originated, so the origin of colonialism and it's occurrence are the things which are different and one can't get the answer by comparing origin from one perspective and occurrence from another perspective.

What I believe is that in total we have three questions, and they are why colonialism occurred? Why did it originate? and What was the goal behind colonialism? One thing that should be strongly noted here that is, the division of questions which I have proposed is the part of a whole, that means the whole idea is to understand colonialism but for getting the complete idea of colonialism we should, at first think on these questions and then ask these three questions together in a single perspective. So, what should be done after knowing the problem I have tried to give answers to this for colonialism in the following way?

Even if I have separated the three questions ***Why colonialism occurred?*** Can we ever get an answer to this question from a liberal or Marxist or postcolonial perspective alone, well I don't think so? let's see the liberal perspective which directly denies the very phenomenon of colonialism as a system of subjugation and domination. So, we can't expect from a liberal perspective to answer why colonialism occurred. Then there is a Marxist perspective that says that colonialism occurred because of the competition that arose in Europe to sustain in the race of industrial revolution. The Marxist explanation is the one which can give the answer regarding the origin and not the process because in its economic analysis though it has described how the







process was evolving occurrence is related to feasibility, not the evolution, later Marxist analysis even said that no one has the exact theory of how colonialism as a process was sustained, there is no such theory of a colonial state (BIPAN CHANDRA). Then comes the postcolonial perspective, but this perspective can never explain why colonialism occurred. It can be proved with a question that if we will ask a post-colonialist why colonialism occurred then he or she will never say that colonizers wanted to come out of Europe and their sole aim was to change the culture of the people of colonies, he or she must have to agree that their main aim was to extract raw materials. As I said in the first paragraph that we do a mistake (the third) that is we ignore the interrelationship between the perspectives, so let's try to get the answer by recognizing interrelationship:- **Colonialism occurred as a process just for exploitation but this occurrence or feasibility of this process was not possible without the liberal justification and in its due course of time, yes it changed the culture of the colonies**. Why this answer is relevant because the first one can see I have explained it by using all the three perspectives and at the same time we know that economic exploitation was never possible without the liberal agendas like the Codification of laws, education, and competitively chosen bureaucracy. Now even after liberals deny the existence of colonialism, we can show how it occurred as a process with the taking its concepts and satisfying ourselves also by Linking with Marxist perspective as well.

WHY DID IT ORIGINATE?

Origin is something that wants a causal explanation, but making a different perspective on it is denying the causal explanation and has made it more subjective, but we will make it more objective. Regarding the origin of colonialism, we can see that it was the Marxist explanation which is very correct that is it occurred due to the need that arose out of an industrial revolution and growing capitalism however I would like to add one more thing which is different from the ideological explanation and that is the rise of Modernity, one can say that colonialism was the bad product of modernity. The modern concepts and values in society, economy, politics, and culture coupled with the scientific and technological revolution helped in the origin of colonialism, and that is also the reason behind why post-colonialists use postmodernist ideas to oppose colonialism.

GOAL BEHIND COLONIALISM

This question is very interesting when we bring the Postcolonial perspective which says that cultural colonialism has not ended yet and it has robbed colonies of their culture.
But let's raise a question, we're the Britishers really thinking that they want to come out of Europe and change the culture of colonies? Definitely no, the main goal was only economic exploitation, so yes it again brings us close to the Marxist perspective but can we ignore the idea of making India a laboratory and use the experimental liberal results in Europe? The answer is no. Basically, the goal was to use India as a laboratory and use its natural resources to finance the development of metropolises and in this process, the culture of India was transformed due to the colonial orientalism they performed.

I would also like to highlight the way in which problems are faced in criticism. One of the most promoted narratives is that if the liberal reforms were so bad then why do we enshrine them in the Constitution or why we are following the same code of conduct and laws in various organizations. A major counter comes from Marxists that these reforms and institutions were at the economic cost of India. However, the best criticism will be if we will deny the liberal agenda on their own terms by citing-

1. inherently hollowness in the ideas
2. Deceptiveness
3. false claims
4. The main goal behind liberalism

The core liberal idea is that humans could be totally transformed from their old age feudal bondage and exploiting relationships towards rational autonomy and conciseness, it can liberate human beings but when we see the reality the case is just opposite in the name of civilizing mission the exploitation loot bondage increased. It was very deceptive because James Mill said that he wanted to create individual property rights enforced by courts of law and this will result in a wholesale revolution in Indian society but to him, it did not matter whether India's government is representative or not. The main goal behind liberalism was not the reformation of India but it was to do experiments by spreading modern education, codification of laws, and competitively chosen bureaucracy, results of these experiments were to be used in British Empire thus India was not in the domain of reform rather it was a laboratory.

Lastly, I would say that one can use the framework which I have used that is knowing the interrelationship between the perspectives, knowing the perspective at first hand, and most importantly by thinking that perspective is there to make things easy but for this, we must know that origin, occurrence, and goal behind the problem are the different things, which perspectives try to answer so this differentiation should be kept in mind. It will definitely bring a clearer picture regarding perspectives on colonialism.

CULTURAL CRITIQUE

GRADUATE'S RECOMMENDATIONS

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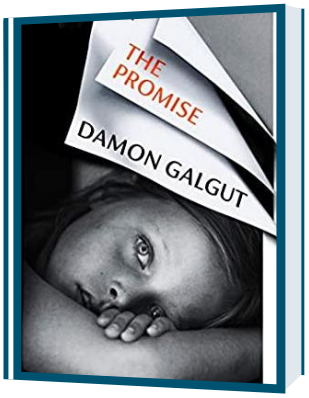


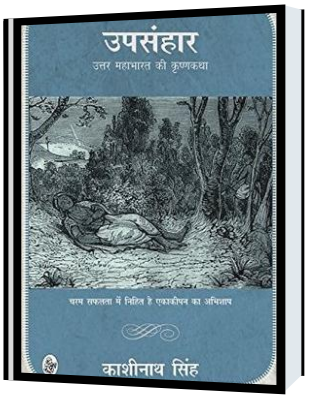
THE PROMISE

by

Damon Galgut

June 17th 2021 by Chatto & Windus (first published April 6th 2021)

Damon Galgut examines the disintegration of the dysfunctional privileged white Swart family in South Africa, living on a farm outside Pretoria, over a period of over 3 decades. The narrator's eye shifts and blinks: moving fluidly between characters, flying into their dreams; deliciously lethal in its observation. And as the country moves from old deep divisions to its new so-called fairer society, the lost promise of more than just one family hovers behind the novel's title. In this story of a diminished family, sharp and tender emotional truths hit home. Confident, deft, and quietly powerful, The Promise is literary fiction at its finest.



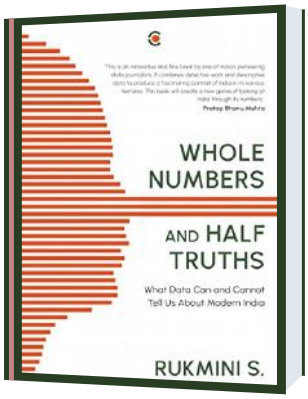
उपसंहार

द्वारा

काशीनाथ सिंह

Published 2016 by Rajkamal Prakashan (first published March 1st 2014)

उपसंहार हिन्दी कहानी के सुपरिचित हस्ताक्षर प्रेमकुमार मणि ने अपनी प्रखर अन्तर्दृष्टि और विचारोत्तेजकता के कारण हिन्दी पाठकों को गहरे प्रभावित किया है। उनकी कहानियों में एक ओर जहाँ सामाजिक विषमताओं और रूढ़िवादिता के विरुद्ध प्रतिरोध के स्वर प्रबल हैं वहीं दूसरी ओर पात्रों की मानसिक एवं बौद्धिक बुनावट के विविध स्तरों की अचूक पहचान भी। ये कहानियाँ मणि की रचनात्मक दक्षता, उनके अनुभव के विस्तार तथा शिल्प के वैविध्य की ओर हमारा ध्यान आकृष्ट करती हैं और विचारधारा से कहीं अधिक अपनी मानवीयता, प्रज्ञा और करुणा से उद्वेलित करती हैं। मनुष्य की मुक्ति का उनका मूल स्वर इन कहानियों में सर्वाधिक मुखर है। यह संकलन समकालीन कथा परिदृश्य में अपना मौलिक एवं विशिष्ट पहचान दर्ज करता है।



WHOLE NUMBERS AND HALF TRUTHS

by

Rukmini S

December 6th 2021 by Context

In Whole Numbers and Half Truths, data-journalism pioneer Rukmini S. draws on nearly two decades of on-ground reporting experience to piece together a picture that looks nothing like the one you might expect. There is a mountain of data available on India, but it remains opaque, hard to access and harder yet to read, and it does not inform public conversation. Rukmini marshals this information—some of it never before reported—alongside probing interviews with experts and ordinary citizens, to see what the numbers can tell us about India. As she interrogates how data works, and how the push and pull of social and political forces affect it, she creates a blueprint to understand the changes of the last few years and the ones to come—a toolkit for India. This is a timely and wholly original intervention in the conversation on data, and with it, India.

WATCH LIST

SPACE SWEEPERS

In the year 2092, environmental disasters have made Earth uninhabitable, so most of humanity spends their time in gritty spaceships out in space. Written and directed by Jo Sung-hee, this South Korean space opera feels reminiscent of Syfy shows like Dark Matter but with a much bigger budget.

THE GREAT INDIAN MURDER

The Great Indian Murder" is a gripping Indian thriller about a poisonous family's genealogy and its ramifications throughout society's hierarchy. When power is abused, the creation of a kingdom has disastrous consequences for all those who are involved. Vikas Swarup's book is a harrowing celebration with a bold look at the explicit exploitation of indigenous people, confirming why certain laws are in place

All of Us Are Dead

It was a normal school day for the students of a Korean high school-until a student returns from the school's science lab, infected by an unknown virus. As the infection spreads out of school and throughout the peninsula, the Military desperately interrogates the psychotic science teacher who started it all, while his students struggle to survive until help arrives.

ART STROKE

Georgia O'Keeffe

In 1930 Georgia O'Keeffe witnessed a drought in the Southwest that caused the starvation of many animals, whose skeletons littered the landscape. She was fascinated by these bones and shipped a number back to New York so she could paint them. She noted, "To me, they are as beautiful as anything I know . . . The bones seem to cut sharply to the center of something that is keenly alive on the desert even though it is vast and empty and untouchable." In "Cow's Skull with Calico Roses," O'Keeffe added a macabre note by decorating the skull with artificial flowers, the kind used to adorn graves in New Mexico. Alfred Stieglitz exhibited this painting at his gallery An American Place between 1931 and 1932.

August Strindberg

Strindberg had no formal artistic training but developed extensive links with the world of visual arts. He was well acquainted with the progressive art of his day, thanks to his close dealings with a large number of contemporary Swedish and European artists, such as Richard Bergh, Ernst Josephson, Carl Larsson, Karl Nordström, Christian Krohg, Edvard Munch, Paul Gauguin, and Alphonse Mucha. In the 1870s, Strindberg also worked as an art critic for the Stockholm press. In this area, he adopted a fairly conventional stance, but he also distinguished himself by his ability to understand and accurately characterize even artistic manifestations for which he felt little sympathy. August Strindberg's painting portrays the topography of the soul, rather than the Swedish landscape, and stands entirely apart from the other artistic currents of the turn of the century.

The Town

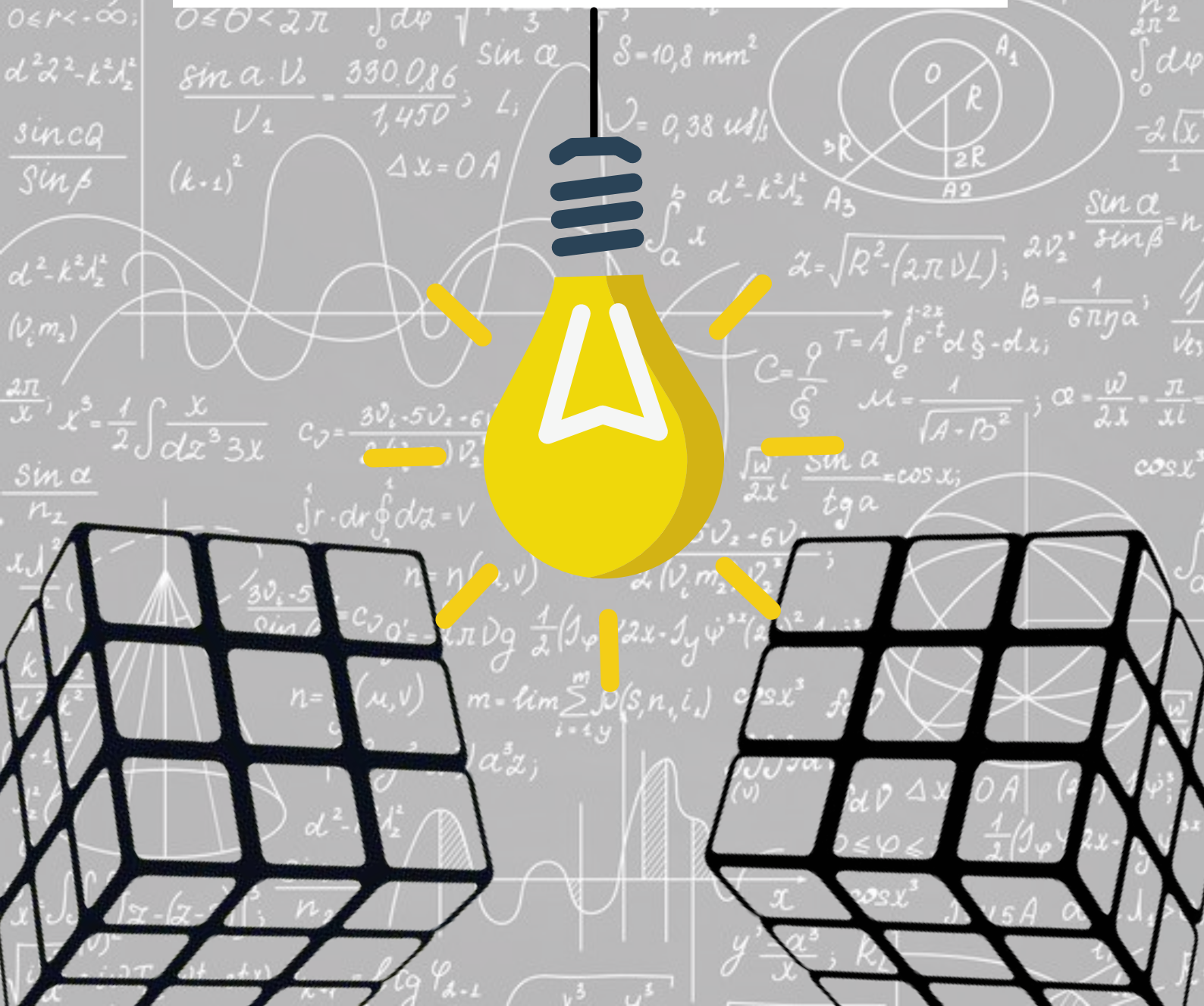
We can hardly see this painting as a true depiction of reality, although the city on the horizon may be reminiscent of Venice or Stockholm. It almost looks as if the city is floating on the water, like a mirage. The dramatic sky, the hint of a city silhouette, and the shockingly dark color palette combine to give the impression of a fantasy or a vision. What is the painting expressing? One might see it as threatening, with its foreboding and dramatically stormy sky. The painting may also convey a sense of distance and alienation. The city – perhaps a symbol of civilization, culture, and life – is a long way off. As we look at the city, we find ourselves in an unidentified dark landscape far removed from civilized society.

Title: Cow's Skull with Calico Roses
(Creator: Georgia O'Keeffe (American, 1887–1986
(.Physical Dimensions: 91.4 × 61 cm (36 × 24 in
Date Created: 1931
Media: Oil on canvas

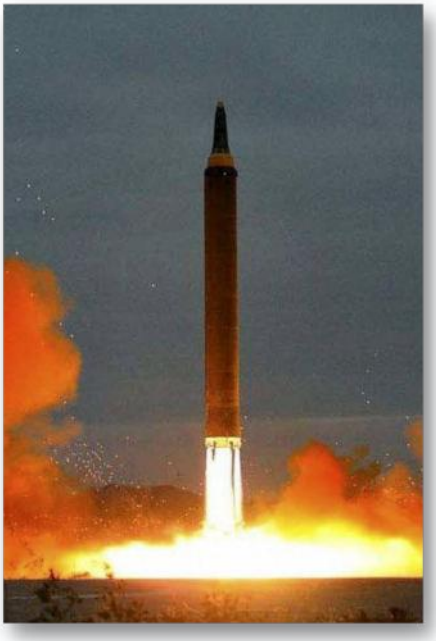
Title: The Town
Creator: August Strindberg
Date Created: 1903
Title in Swedish: Staden
(Physical Dimensions: w530 x h945 cm (without frame
Rights: Nationalmuseum, Nationalmuseum
Medium: Oil on canvas

THE GENIUS SECTION

BRAIN GAMES, QUIZ, MISCELLANEOUS



QUIZ



1. As of 2022, which country is the top Steel Producer in the world?

2. Which country launched the Hwasong-12 mid-range ballistic missile?

3. Which Ministry is the nodal agency of the 'Fly Ash Management and Utilization Mission'?

4. Indian Women's Hockey Team won which position in the Asia Cup 2022?

5. Geological Survey of India (GSI) has approved to set up India's first Geo-Park in which state?

6. The Government of India has done 'Conversion or Switch operations' with which institution?

7. Which Indian state/UT got its first-ever good freight train connectivity post independence?

8. Which country has developed an artificial intelligence Nanny (AI Nanny) to monitor embryos?

9. As per the Economic Survey 2021-22, what is the estimated GDP Growth of India in 2022-23?

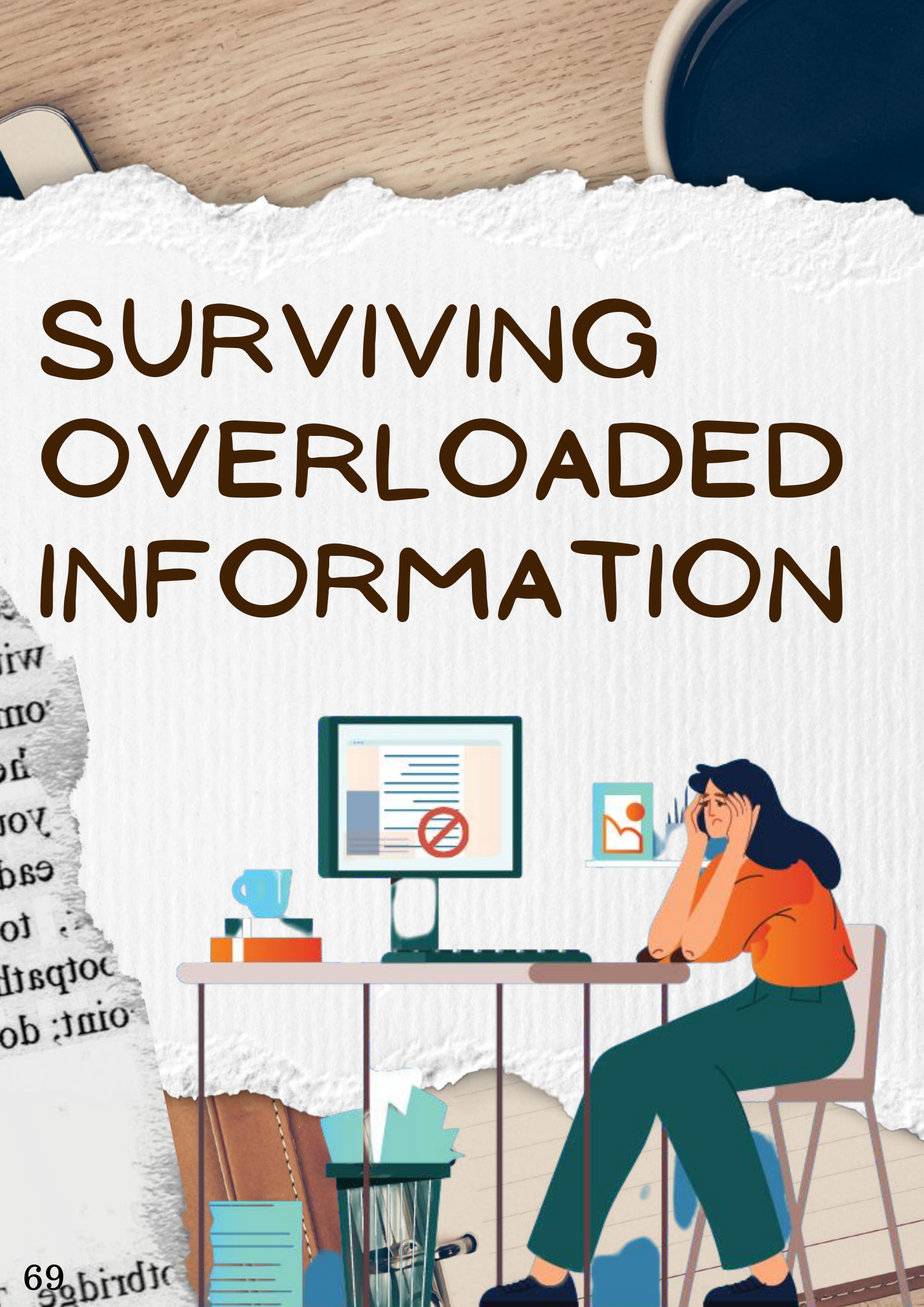
10. The Lunar New Year 2022 marks the start of the Year of which animal?

11. Which State/UT has approved Ex-gratia relief of Rs 20,000 per acre to farmers?

12. India adopted the 'Digital Work Plan 2022' along with which bloc?

ANSWERS: 1. China, 2. North Korea, 3. Ministry of Environment, Forest & Climate Change, 4. Third, 5. Madhya Pradesh 6. Reserve Bank of India, 7. Manipur, 8. China, 9. 8.0-8.5%, 10. Year of Tiger, 11. Delhi, 12. ASEAN

SURVIVING OVERLOADED INFORMATION



Turn Your Values into Time:

Consumption of information should start with determining your values. Values turn you into whom you want to be. Honesty, integrity, self-reliance, and kindness are attributes of a valued person. A value is like a guiding star; it's the fixed point we use to help us navigate our life choices, including how we spend our time.

A Value Calendar:

Categorize your values into three different domains- you, your relations, and your work. With this, there will be an outline of where you spend your time and a way to think about how to plan days. After acknowledging the most significant values, build them into your calendars. If you don't plan to live out your values -e.g., making time to do the work to live out your life of honesty- you won't follow through.

Impose Constraints and Get Things Done:

Often, people take information in whatever cracks of time they have in their day or when they feel sad, anxious, or bored. This is where distraction comes from. Schedule imposes a constraint. People with long to-do lists usually don't achieve what they want. You can always add more to a to-do list. A calendar, on the other hand, forces you to make substitutions. It's completely in your hands how you want to spend your 24 hours.

Make the most of your time:

Prioritizing your values and turning them into time and imposing constraints will give you focused content that will be worth your attention

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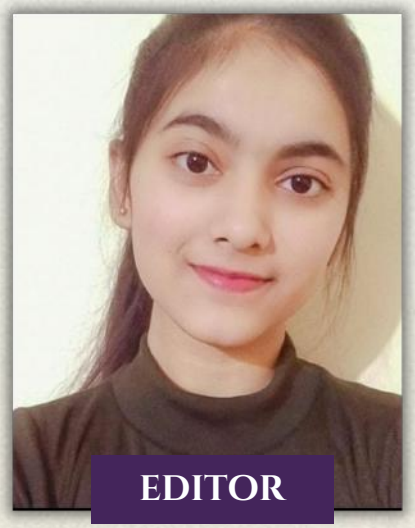

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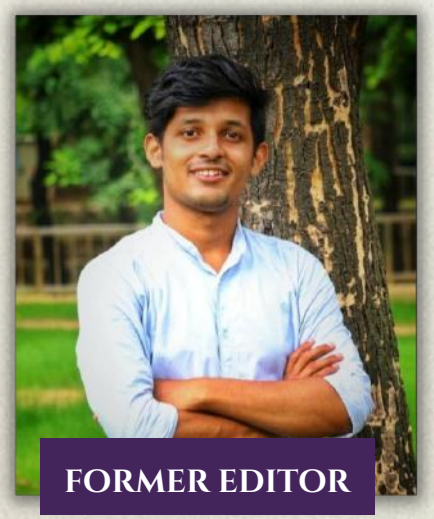

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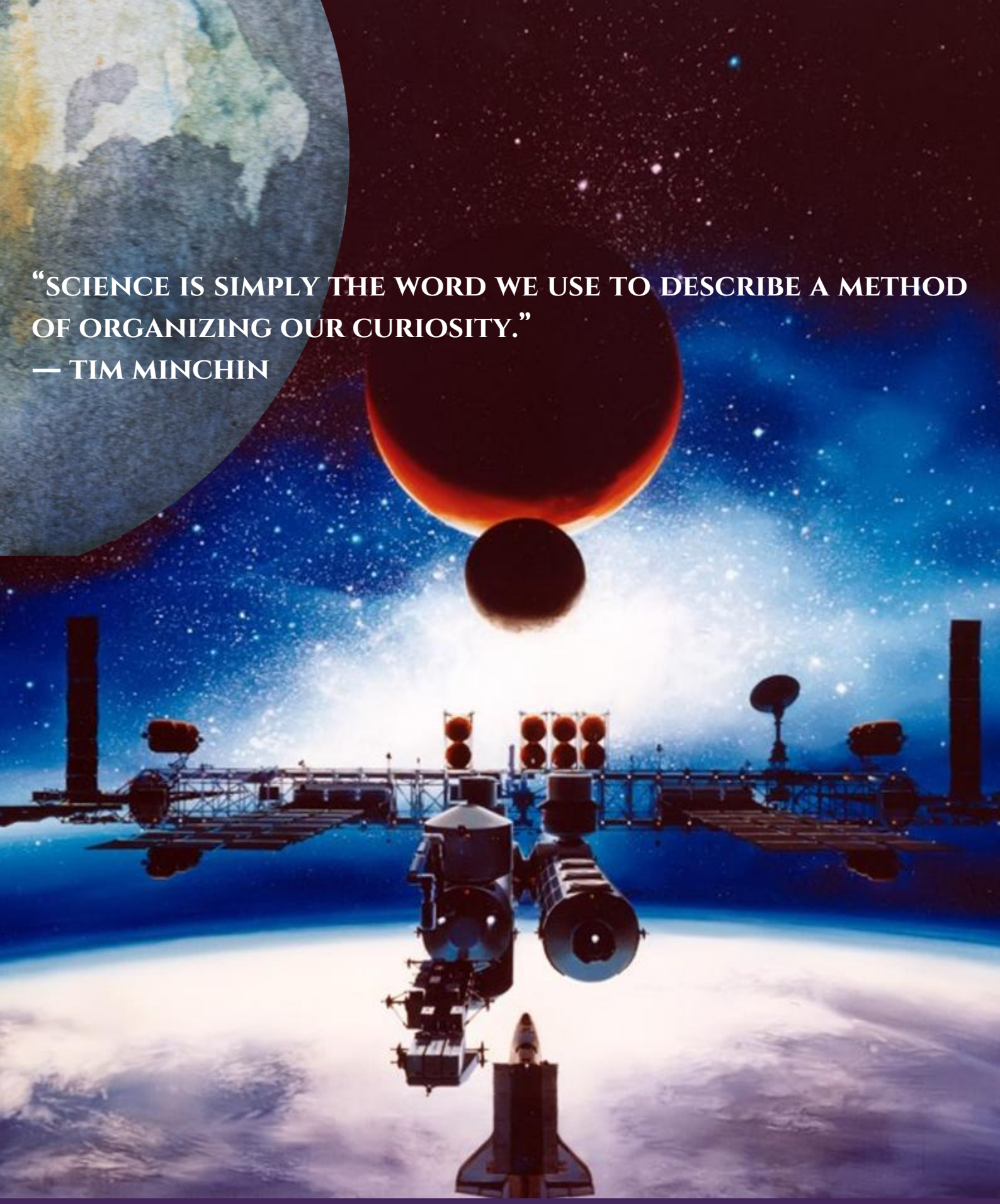
Mr. Priyanshu Singh
MARKETING HEAD



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