



SYMBIOSIS COLLEGE OF ARTS & COMMERCE

An Autonomous College | Under Savitribai Phule Pune University
Reaccredited 'A+' with 3.51 CGPA For Third Cycle By NAAC | College with Potential for Excellence



THE SYMBIAN

**ISSUE 1: TECHNOLOGY AND OUR
EVOLUTION**

EDITORS' NOTE

The calling of the humanities is to make us truly human in the best sense of the word. Such is the legacy of the Humanities Department of our prestigious institution and we as its students would only like to take that legacy forward.

Technology in the 17th century denoted “a discussion of the applied arts” which as we all know has changed into something much more complex and sophisticated now in the 21st century and has changed the world drastically ever since. Melting of ice caps, the rising sea levels and an anxious, materialistic youth, everything can be linked to technology and its effects, what is ironic here is that even the solution to these problems can be devised only through technology. Electric cars are the future in a world where oil and natural gas is nearly depleted. Solar-powered homes can be sustainable and reduce the burden on the power grid. Nuclear energy is far more feasible, economic and cleaner when compared to coal-powered plants. Sustainable fashion has become the “in thing” , thanks to the power of social media to motivate the youth to opt for sustainable ways to not only look good, but be acceptable in a fashion driven society.

In this spirit of technology, to celebrate it, to critique it and to appreciate it, we present to you the finest minds of our institution in the 1st edition of The Symbian, the official Humanities Newsletter of Symbiosis College of Arts and Commerce.

Regards,

Nadia Musavi and Srishti Sinha
(Editors-in-Chief)

Table of Contents

01

**An Overview of NFT'S AND
The Indian Reaction**

~Kushagra Jha

04

Clickbait

~ Srishti Sinha & Goutami Rane

06

**Cyber Warfare: A New Face of
War and Conflict**

~ Meghana & Kushagra

10

Digital Gold

~ Priyansav Rai

14

Evolution of Memes

~ Nadia Musavi

20

**Fast Fashion: A Facinorous
Facade**

~ Shuchi Shekdar & Avijeet Khurana

23

The Internet of Things

~ Soha Deshpande

26

**There's nothing cryptic about
crypto currency**

~ Sidharth Rajee Nair

June 2022 | ISSUE I |

AN OVERVIEW OF NFT'S

And the Indian reaction



Founded in 1766, Christie's is a renowned and trusted British auctioning house. It offers a range of global services to its clients, including but not limited to art appraisal and auctioning. And when for the first time in its 250-year history a completely digital piece of artwork was listed, people more than ever knew what NFTs were.

The artwork listed was an NFT called "Everydays: The First 5,000 Days", made by Mike Winkelmann, who is better known as "Beeple" online. It is a collage of 5,000 pieces of digital art made everyday since 2007. Selling for \$69.3 million, it is the most expensive NFT purchased by a single buyer to date. Going even further, digital artist Pak's piece titled "The Merge" sold for \$91.8 million, with close to 30,000 collectors pitching in.

Similar to cryptocurrency, NFTs are tokens existing on the blockchain which are akin to a certificate which can be used to prove the legitimacy and ownership of a wide range of items. NFTs can be any type of digital file, including but not limited to audio files, video files, photographs, or even tweets. NFTs and cryptocurrency

are designed to function on the same technology- the blockchain. To put it simply, the blockchain is basically an online register of information and transactions. It is open, digital and decentralized, making it hard to cheat, hack or disrupt its functioning. A main distinction between cryptocurrencies like Bitcoin or Ethereum and NFTs is that cryptocurrency is fungible. NFTs, on the other hand, are non-fungible, which means that they don't have a fixed value. As an example, you could trade one bitcoin in exchange for another, because they are identical. However, since NFTs are unique, they cannot be exchanged in the same way.

The biggest advantage of NFTs is the fact that they offer an alternative to the current market and trading world of artwork. NFTs allow artists to remove any sorts of auction houses or middlemen needed to sell their work. Instead, they can sell their art directly to an interested collector. Plus, every time the NFT is sold or changes hands, the artist receives a small royalty amount. This helps the artist cement a steady source of income. Additionally, NFTs are thought to be a great investment, which would only rise in value in the coming years.

Going further, NFTs could even evolve and instead have more practical uses such as being used for effective management of data and information. An extremely common example is how if passports were converted to NFTs, the process of identification and travel could be sped up a lot more.

NFTs are purchased using black money, sold, and re-purchased, in an attempt to make the transactions seem legitimate



However, even with all these positive factors of NFTs, the negative ones may as well tip the scale against NFTs. Even though the empowerment of the artist is one of its selling points, a large number of artists have been reporting their artwork being sold as NFTs without their consent

The high-end artwork market is an attractive and very vulnerable honeypot for financial crimes such as money-laundering. NFTs can be used for "self-laundering", a process in which NFTs are purchased using black money, sold, and re-purchased, in an attempt to make the transactions seem legitimate on the blockchain. This NFT can then be sold to a completely unrelated party, whereafter the money has become "white". Alternatively, criminals can hack into the accounts of collectors, transfer the NFTs into their own account and then proceed to sell them. According to The Royal United Services Institute (RUSI), it is also possible for information to be hidden inside an NFT. For example, this information could be exposing a security threat in a software or program- the NFT here acts as a medium to share this information. Even aside all these digital issues, there is a way in which NFTs can affect the real and physical world- that is, the environment.

According to The Royal United Services Institute (RUSI), it is also possible for information to be hidden inside an NFT ... This information could be exposing a security threat in a software or program

It is not the NFT itself, but rather the technology on which it depends- the blockchain. Similarly, even cryptocurrency can have effects on the environment. According to the Digiconomist, a single Ethereum transaction consumes more than 70.32 kWh. This is equivalent to a carbon footprint of around 34 Kg of carbon dioxide (CO₂). Compared with traditional sources of consumption, this carbon footprint is equivalent to over 76,000 credit card transactions. Ethereum consumes more energy per year than all of Denmark and has a carbon footprint the size caused by Lithuania, according to the site. Moreover, because of the recent boost in popularity of NFTs, this issue has only increased in severity. Technologies depending on the blockchain use a great amount of power to operate, and the issue here isn't only the amount being used, but also for what it is being used. All this energy being drained into an asset such as NFTs is seen as pointless and a waste of resources which could have been used elsewhere.

A single Ethereum transaction consumes more than 70.32 kWh. This is equivalent to a carbon footprint of around 34 Kg of carbon dioxide



While there is large potential for the NFT market in India, it is very lopsided. From the perspective of the creator, there are a large number of artists and professionals with different art styles and background, who could create some exciting NFTs. WazirX, India's largest Bitcoin and cryptocurrency exchange platform has an Indian creator community of over 1,300 artists and another 20,000 waiting to be allowed into the marketplace. It is clear enough that India, from a creator's point of view, is full of potential. The collectors and buyers on the other hand, not so much. There is a lack of knowledge about NFTs and cryptocurrency in general and is viewed with a lot of wariness. There is quite an impressive supply of this asset, but not enough demand. When the Bollywood superstar Amitabh Bachchan introduced his own NFT collection, it sold for just under \$1 million, showcasing the lack of interest and awareness the general populace has in NFTs. For many, tangible assets like gold and real estate still seem to be the safer investments, and rightfully so.



However, rather than being worried by the taxes, the crypto community in India is more worried by another section. The budget says, "for the purposes of this clause, (a) 'non-fungible token' means such digital asset as the Central Government may, by notification in the Official Gazette, specify." This is a cause of worry for people because this leaves many questions unanswered, and there can be numerous interpretations of what exactly this section means. An interpretation of this section is that the government could have the power to decide and classify what is an NFT and what isn't. Although such vague sections are frustrating which is to be expected since we are still exploring NFTs and cryptocurrency. It is also interesting to note that the Reserve Bank of India (RBI) will be issuing a digital rupee using the blockchain technology in the fiscal year of 22-23. This shows that the government is open to cryptocurrency and blockchain technologies as a whole, although progress may be slower compared to other nations.

India has just started out developing laws regarding NFTs and Finance Minister Nirmala Sitharaman while presenting the Budget 2022, indicated that any income from NFTs and similar digital assets would be facing a 30% tax and another 1% tax at the time of the actual transfer of the asset.

There is a lack of knowledge about NFTs and cryptocurrency in general and is viewed with a lot of wariness.

~Kushagra Jha

CLICKBAIT



We've all been quick to click on "skip" when an ad starts at the beginning of our YouTube videos. However, there are some ads, funny or emotional, sad or happy, that remained etched in our memories. Brands are like biryani and advertisements are like the "dum" you add into it. It makes all the difference! But how do some ads manage to live in our mind rent-free? The key ingredient is getting into the minds of the consumers. That's when Advertising Psychology comes in play.

Ogilvy once said, "Advertising people who ignore research are as dangerous as generals who ignore decodes of enemy signals." All advertisements are a product of understanding of the human psyche.

Two central models of advertising are Consumer Processing Model (CPM) and Hedonic, Experiential Model (HEM). The former is utilized by brands like Apple company and are very limited, minimal, specific and highly focused on the new features, developed and introduced by the company with every new launch. It tends to focus on facts, data, and calculative approach.

The latter is used by brands like Nike. Nike's - 'You can't stop us' campaign shifts its focus from the quality and durability of the athleisure wear to uniting, rising, and shining once again amidst the pandemic. This model is roughly based on the 3 Fs - Fun, Fantasies and Feelings.

Brands aim to trigger various emotions in the audience to elicit desired responses. This technique has been used by several brands and they certainly have aced their campaigns!

We all cherish a pinch of humor in our lives. To catch the public eye, brands extend relatability in their content. Often, we see brands engaging in humorous banter on social media touching upon simple yet common instances in all our lives. Mentos was one of the brands to live by the laughter attack effect through their creative ads and tagline that made people instantly connect with the products. The simple yet humorous tagline "Mentos, Dimag ki batti jala de" was welcomed by all of us and remains to be a part of everyone's childhood nostalgia.



Talking about nostalgic emotions, Google's Reunion ad still lives in our hearts and as much as its inconvincible, the ad came out in 2013! But how is it still one of the most well received ads? Crafted and produced by Ogilvy and Mather, the ad aimed to elicit an emotional response touching upon the wounds of partition and a lost childhood friendship. The ad reflects how Google assisted in reuniting two old childhood friends who were separated due to the ill-fated partition. The ad is as comforting as a bowl of warm soup and turned out to be an extremely successful advertisement.

Excitement is another tactic that is used by brands to create a buzz around their product. Everyone knows that drinking Thums Up makes you "taste the thunder". Its tagline created a sensation which attracted youngster to consume their product.



An obvious fact is that everyone loves a pop of colors and brands use this method to divert the consumers attention to their products. The colors red and yellow immediately reminds us of McDonald's. This way brands create their presence in our psyche. Research and findings have shown that colors like orange and red are quite popular in Indian subcontinent, whereas colors like green and blue are considered impressive in their western markets.

A sense of equality backed by wit is the method to make an exciting Ad campaign. Burger King showed the world how ad campaigning is done the right way as it completed 2 years of successful partnership with Stevenage FC. Back in June 2019, the Club launched its kits which featured the burger chain's iconic logo for the first time, creating a social media frenzy. But that wasn't the talk of the town. What followed next was truly remarkable, in September 2020, burger king focused on the Stevenage FC women's team collaborating with an equal rights sponsorship deal which saw the burger chain change their logo to Burger Queen and place it on the front of a shirt for the first time. This gesture grandly instilled a feeling of equality in women and became an incredibly successful ad campaign.

Study has shown that advertising has a huge impact on the viewers especially on children and teenagers, so, now you know the reason why big companies religiously invest in advertising as much as they do in making the product. We live in an era of influence and with massive research on how psychology works and can be molded to achieve a desirable outcome, companies have been doing just that!

A sense of equality backed by wit is the method to make an exciting Ad campaign.

~ Srishti Sinha & Goutami Rane

CYBER WARFARE:

A New Face of War and Conflict



From Iran's nuclear program to Sony Pictures to the 2016 U.S. Presidential Elections- there is a certain weapon that has targeted all these events and locations. They are not weapons of conventional war. It's a form of warfare that is not limited by borders, distance or the risk of identity exposure.

According to Britannica, cyberwarfare is "War conducted in and from computers and the networks connecting them, waged by states or their proxies against other states." A cyberwar, cybercrime or cyberattack are not the same, yet their intent is the same- "Weaken, Disrupt or Destroy". This intent of disruption can be seen most clearly in the Stuxnet worm that targeted Iran's nuclear

program. Stuxnet targets programmable logic controllers (PLCs), which are computers used to automate electromechanical processes. Although first discovered in 2010, it is thought that its development began in 2005. It is widely considered to be developed by the United States under the administration of George Bush and then carried over to Obama in conjunction with Israel. Its purpose was to disrupt Iran's nuclear facilities, although limited evidence has been found to support this.



The worm infects a computer and then manipulates the nuclear centrifuges to spin too fast and for a long period of time, effectively wearing them down. This was the first virus that was able to actually affect the physical world and hardware. Reportedly, about one-fifth of Iran's centrifuges have been destroyed as a result. Additionally, the same worm can also be used against industrial machines and has caused over a thousand to physically degrade.

Stuxnet clearly shows why weapons of cyberwarfare are extremely efficient- they aren't limited by borders, and finding the perpetrator is exceedingly difficult. Countries are now able to directly target sensitive facilities without even having to use technologies that would reveal their identity.

Another key example is *The Interview*- a 2014 political comedy movie about a pair of Americans who assassinate the North Korean dictator, Kim Jong Un. In late 2014, Sony Pictures Entertainment found itself to be the target of hacks by a group called "Guardians of Peace".

They stole enormous amounts of data, and even leaked information about Sony employees. Later, movie theatres were threatened with acts of terrorism if Sony did not cancel the film's release. There has been evidence from the FBI and NSA that North Korea was responsible for these attacks. This brutal shutdown and harassment of employees leaves no doubt that this attack could be an example of what happens if film makers decide to court controversy. This could cause media persons to shy away from criticizing controversial figures, effectively silencing the voices who speak out against such figures. The discussed examples of cyberattacks show just how unlimited it can be. It is not necessary that these weapons are used with militaristic intent only. It can also be used by groups to promote their beliefs, or to simply disrupt those of others. It need not be political in nature; it can be geared towards anything.



The United States of America is thought to be the world's hegemon, a victor of power because of her sheer military and economic strength combined with the effect she has on soft-power issues. But what if we changed the criteria for victory? What if instead of military, economic, and significant power, we tried to look at it from a perspective of cyberwarfare?

Israel is thought to be one of the powerhouses of cybersecurity. It has secured the second largest number of cybersecurity deals, just after the USA. With a \$82 Billion cybersecurity industry, it is a nation which faces hundreds of cyberattacks on its websites and systems, and thus is one of the best prepared nations against cyberwarfare and attacks. With changing times, the changing face of war, the criteria for safety also changes. Israel truly does have a chance of becoming a super-power, just in a different field. Having invested a lot of money and resources into human capital and a powerful military that effectively utilizes cyberspace, it is one of the





leading nations in the field of cybersecurity. The industry is so prioritized, that cybersecurity is a subject taught to fourth graders in some schools there. Israel is an essential figure in the changing world order in relation to the field of cybersecurity and its related areas. This also marks one of the few times where a Middle Eastern nation holds immense power in a field unrelated to oil, resources or tourism. The common man must be thinking, what does a computer worm destroying Iran's nuclear centrifuge and Sony Pictures being hacked have anything to do with me? It was said before, that cyberattacks need not only have a political intent, but it could also be geared towards anything at all. Nations have started to use cyberspace to their advantage, how long until terrorist groups do the same? These attacks can also be geared towards destroying- to target hospitals, electricity grids, water pumps, online transactions, and more.

A little closer to home, a power outage in Mumbai last October left thousands of Indians without electricity. The lives of patients admitted to hospitals during the outbreak of the pandemic were at risk, people couldn't contact their loved ones. Later on, many politicians, groups and newspaper companies came out with the theory that China was the perpetrator. Although the evidence is unclear, General Bipin Rawat, chief of defense staff, says "We know that China is capable of launching cyberattacks on us, and that can disrupt a large amount of our systems." During that period, amidst the border conflicts, there was incentive to disrupt the Indian power grids, but China vehemently denies any and all responsibility.





In a world shifting closer to complete digitalization, safety in cyberspace is a heated issue that we must be more vigilant towards. Using strong passwords and keeping our software up to date may provide some protection but the reality is that there is no security system that cannot be hacked. Nations must take a more serious look at this fourth arena of battle and bring some structure to this fluid dimension before we fall for the next attack without even knowing it.

~ Meghana & Kushagra

DIGITAL GOLD



Could you imagine that 10 years ago, a swipe of your finger on your device's screen, would generate thousands of megabytes worth of data? From the posts you liked on your Instagram's home feed to how long you looked at a product on Amazon before you purchased it (or did not purchase it). That would then be put through complex algorithms worth millions of dollars and be used to determine what should be shown to you on your screen to create engagement from you? Or even influence you at times? Creating an experience unique to you only. No two people will ever have the same type of experience on the internet, such is the power of data.

This was possible only because of the invention of the internet which started back in the sixties at the height of the 'Cold War.' It was created as a way for the U.S. Government researchers to be able to exchange data with each other efficiently without having to physically transmit it in the event of a nuclear war. What started as a simple means of communication soon became the catalyst that changed the way our world functions

Today, the internet is close to becoming a fundamental right for a human being. From booking a cab to go to the airport to essential health services like reserving a slot for yourself to get the COVID Vaccine. All services require you to use the internet in one way or another to be able to avail them. It is simply impossible to imagine living a life without the it. Even this article is able to reach you using the power of the internet!



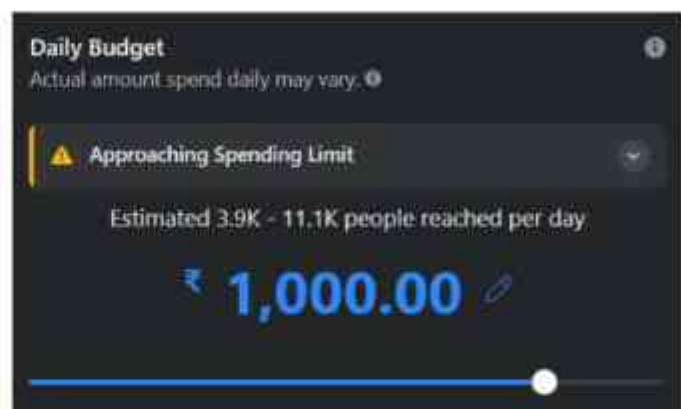


Fundamentally, internet is the exchange of data between computers across a network. However, the definition of 'data' has evolved drastically in the last decade. What we might consider to be 'irrelevant' is used by organizations to predict your behaviour and judge what to show you and what not to. To put it into perspective. Have you noticed how you always see your close friends' stories on Instagram first and then everyone else's later? Even if chronologically their story was put up hours ago, you would still see it pop up on your feed first. This is because your behavioural patterns have been analysed by the algorithms to determine that your engagement is maximum with your close friend's stories (or posts too).

This is a small example to help you comprehend the grand scheme of things. Let me give another example to give you a better perspective.

Companies use the data generated by users to give out 'targeted advertisements' on social media sites. The conventional system of advertising involves putting up ads on television channels, radio, newspapers, magazines etc. to promote your product or service. You would have to put out a general ad on all these mediums. Example: If you manufacture and market 'musical instruments' you would end up advertising to people who aren't musicians or have no interest in playing music just to be able to reach your designated segment of the population. This is expensive and you are wasting money on advertising it to anyone who has no interest in playing musical instruments.

On the contrary, 'targeted advertisements' allow you to put out ads to only your 'targeted audience or population' i.e., musicians. The algorithm goes one step further and tries to predict those people who 'might' want to learn a musical instrument if they see an advert for it. Therefore, not only are you reaching out to your existing customer base, but you also reach new potential customers at cost effective rates.



For Rs.1000/day your advertisement can reach 4000 to 11,000 people every day. (Source: Facebook)

Disclaimer: This figure is after feeding in details like, geographical location, age, gender, hobbies, and interests. Reach and rates differ when you change this 'data.'



Advertisement is just one sector where data is used to understand the consumer. Other sectors like defence, policing, health, sports, film & television, music and so many more, are also making use of data.

During the cold war, countries tried to gain access to as many resources as possible, especially oil. It was termed as 'Black Gold.' It is safe to assume that in this 'information era' the procurement of as much data as possible is equivalent to having a strong military. In fact, having a strong network that gives you access to data can reduce your dependability on having a large capital- & labour-intensive military force as well, but that is a discussion for another day.

"Data is a precious thing and will last longer than the systems themselves."

— Tim Berners Lee, inventor of World Wide Web

However, while this sounds good theoretically, Data collection is characterised with the invasion of individual privacy. You are no longer able to do anything in private even if you try extremely hard to do so. Which brings forward the question of whether we are truly free even though we live in a 'democratic' system? When you know that you are tracked every step of the way, can you think the way you want or even do things you want? And be who you want to be? This invasion of privacy is diametrically opposite to individualism, a key trait of democracy.

Just as the unregulated usage of 'black gold' has resulted in a climate emergency for the world.

This digital gold can prove to be detrimental to our democratic systems if left unchecked for long as authorities can misuse this information to sculpt the political discussion in the way they want, which can pave the way for a totalitarian regime that represents a select few, not the common people. The internet has been successful in giving the creative fields a platform which allows them to display it to the world.



Platforms like Twitch, YouTube etc. allow content creators to use their talent and make a living off of it. The algorithm which uses this 'digital gold' ensures that the right people find their work. But the commercialisation of these creative fields has caused a creative decay. Now, a vast majority of online content creators try to make 'more of the same' and boost their presence on these platforms to gain engagement and revenue which is shallow with no creative thought process put into it.



Prima facie, it may not sound important. But overall, with decaying creative talent we may not be able to witness another Van Gogh, Shakespeare, Picasso, or a Hitchcock. When I take the names of these personalities, I mean to focus on the way they transformed their fields, they did so by breaking established rules or conventions. Society changes

with time and it is the creative fields which establish such changes. For a thriving society, change is the only constant.

Let us try to demand for better regulation on data collection and usage. Focus on establishing 'data sovereignty' that brings the power of the internet back to the people. We cannot revert the

revolution brought by the internet as it is now integrated with our lives. But we can try to create a better version of it. One which does not depend on the invasion of people's privacy for the profit of just a few. Just like the climate change crisis, this too is the need of the hour. Saving the planet not only involves saving nature, but our societies too

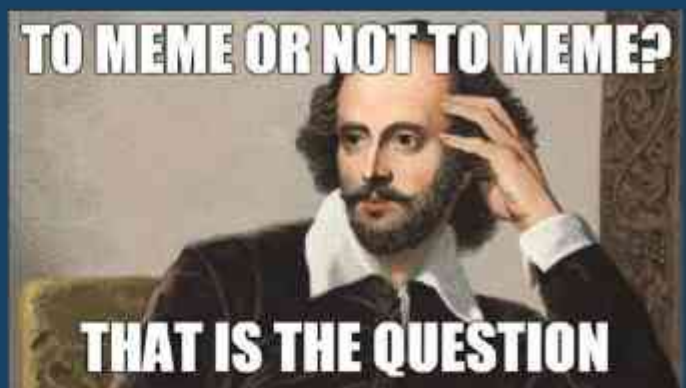
~ Priyamvad Rai

EVOLUTION OF MEMES:

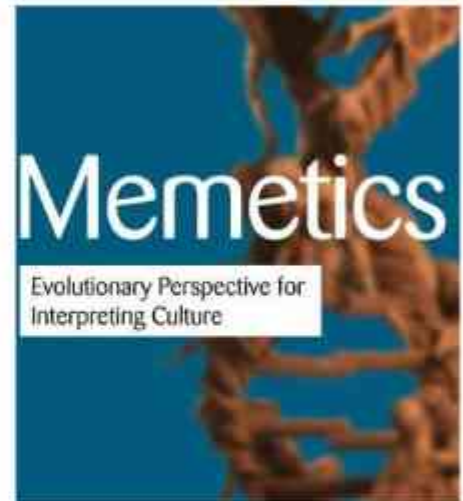
Survival of the Funniest



Every single day, on an average, a million memes are shared by today's Gen-Z and Millennials on Instagram. The subreddit r/memes on Reddit, the "front page of the internet", has over 1,00,00,000 subscribers. With the outbreak of the Coronavirus, memes became a safe haven as well as the most accessible form of entertainment for people shut inside their homes. Things that people used to laugh about together in clubs, offices and schools could now be shared online in the form of texts, images and videos generated on user-friendly, accessible applications without



having to actually meet anyone physically. On the surface, memes might just be a bunch of jokes created and customized using new or pre-existing formats available online, however, as ironic as this might sound, memes are not a joke anymore. Internet memes have become a crucial form of communication. In this article, I aim to deconstruct an exigent phenomenon and present to you its evolution from a mere term and acquaint you with its commonly understated impact on today's world.



Are Memes Genes?

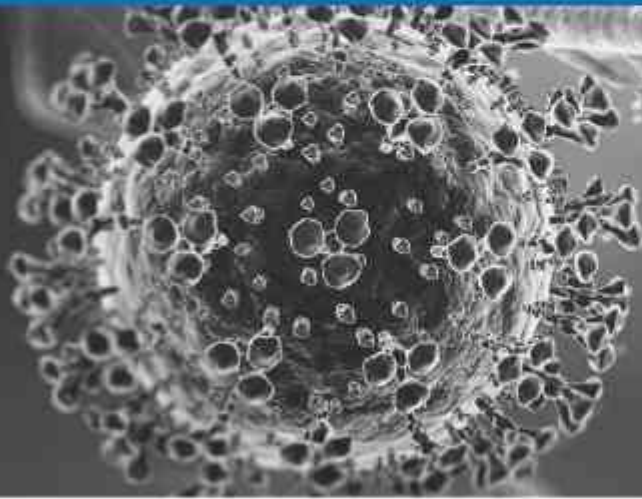
In layman's terms, Genes carry information, they are replicated and transmitted from one person to another. They have the ability to evolve, mutate randomly and undergo natural selection i.e., compete for survival (in evolutionary terms). Richard Dawkins, a British evolutionary biologist, formulated the term "meme" in 1976 and defined it as, in simple language, a gene-like infectious unit of culture that spreads from person to person. These units could be in the form of an idea, behaviour, or style that spread by means of imitation from one person to another. They vary in their aptitude to replicate and survive only when they become successful (natural selection). Successful memes will remain for a longer period of time and spread while unsuccessful memes will soon be forgotten. Unlike genes, memes only exist in theory, therefore, to draw a simile, memes carry symbolic meaning like genes carry information. This way, Dawkins presented memes as a cultural analogue to genes. No matter how absurd this analogy sounds, it does have a kernel of truth in it.

Since then, many theories inspired by this have gained recognition among scholars.

Theories of evolution assume that natural selection takes place through only one replicator, the gene. Imitation, however, is not only a genetic phenomenon. It is constantly influenced by our surroundings, our culture, or like Dawkins termed these variables, memes. Therefore, this groundbreaking theory suggests that evolution through natural selection is operated by two replicators, genes and memes. Dawkins, in his theory, mentions how memes that survive need retention for propagation. Each time a meme is shared, its life increases. Since hosts (humans) are mortals, retention alone is not enough for the survival of a meme, further transmission is crucial for their longevity. Memes not only refer to jokes, but even skills and technologies. Another similarity that memes now share with genes is that they have their own field of study known as memetics. I'm telling you; memes aren't meant to be taken lightly.

A R E

MEMES VIRUS?



Taking epidemiology as its model, Susan Blackmouth in her book *The Meme Machine* explains memes as the cultural equivalent of a flu. Memes, according to her, are transmitted through the communicational equivalents of a sneeze and this analogy is clearly visible in “viral” content spread through the internet. Let’s take the popular song *Gangnam Style* by PSY from 2012 as an example. The song itself isn’t a very beautiful melody that brings pleasure to listeners; however, its tune was unforgettable and stuck to our minds instantly. The song and its video became “viral” with its official video on YouTube, as of today, gaining 4,132,146,801 views and 22 million likes.



When I first listened to *Gangnam Style*, it was only out of curiosity, to see what the hype was all about. I hated it. It didn’t cater to my taste in music. Even the video wasn’t made in good taste. I was shocked by the undeserved popularity the song had gained within a few weeks of its release. Soon, it started popping up on radio channels, I would hear it in parties, people started sharing videos of themselves dancing to the song, the memorable “meme” was everywhere. There was no escape. Even my 70-year-old grandmother was aware of the song! Despite my resistance due to my dislike for the catchy tune, I often found myself humming and recalling the steps of that song to the extent that I even once got irritated and corrected my friend when she (surprisingly) sang it wrong, instantly realizing how the viral video had even affected a person who didn’t like it in the first place.

One such meme, out of many others popular on social media is the “cinnamon challenge”. The dare requires you to ingest a spoonful of cinnamon in under a minute without any external help like drinking water. Mathew Rader, a 4-year-old from Kentucky, USA got inspired and “imitated” what he saw on the YouTube videos accessible by everyone. His mother reported that Mathew immediately started to choke, and after what appeared to be a seizure, he died of asphyxiation.

Now that we have shifted to a world obsessed with technology, to explain the theory of memes as a virus, I would like to use actual computer viruses to present the similarity between memes and viruses. One of the many computer viruses available, the most troublesome would be the Trojan Horse which is a kind of virus or a malicious code that seems legitimate or safe to download, can take control of your computer thus, damaging and even stealing every piece of information in your device. Usually, computer viruses self-replicate, which is not the case with the Trojan Horse virus. It requires a host (user) to execute it. Some computer viruses are not as harmful as this. The changes they cause to a device may be too small to notice but detrimental nonetheless. One such "virus" or meme as it is called is the "Rick Roll". Rickrolling is when a person gets trolled by clicking a link and immediately being redirected to the YouTube video of Rick Astley's song "Never Gonna Give You Up". It doesn't end here. Rickrolling has reached a level that people don't even have to click any links, the video of Rick Astley dancing can suddenly appear in any video or presentation and they would be Rickrolled. The reason I'm calling this trolling meme a virus is because, it is completely unexpected and at times, annoying.



*Rick Astley in his music video
"Never Gonna Give You Up"*

Imagine, you're in a hurry, you urgently need the link from your friend to, let's say a YouTube video you need to watch for your assignment, however, your friend is in the mood of trolling you. Instead of sending you the link to the video you need, he Rickrolls you. You could have been in the mood of some serious studying that day, or maybe you had to submit your assignment tomorrow. There was no way you were expecting to land on Rick Astley's "Never Gonna Give You Up" music video. Although the video didn't steal information from your computer, it is an embarrassing and annoying troll which is almost inescapable.



The theory of memes as viruses conceptualizes humans as passive and helpless victims of meaningless media that infect our minds. Are we simply being used as hosts for these viruses to breed? Can a meme compete and survive the tough competition even if it is detrimental to the host? Do we even have a say in which meme becomes "viral"? What will happen if the "fittest" memes are also the most harmful to us? This is some serious food for thought.

MEMES AS AN



ACT OF SPEECH



Another theory by researcher L. Grundlingh is that memes are neither cultural analogues to genes, nor viruses. Memes are just an act of speech, a way of communicating in this day and age. He renounces the study of memes, memetics, as a very "narrow" approach to memes that focuses largely on genes. He argues that memes are not the same as what they used to be earlier. In the digital era, memes do not work on the principles stated by Dawkins and following a certain fashion style or skill is no longer referred to as a meme.

Speech acts are a form of communication. Although they essentially refer to verbal communication, even non-verbal communication (such as memes) can be seen as an act of speech as videos, texts and images work on the same principle. Meme is only a mode of communication which hold texts, images or videos to communicate a message stating it explicitly or subliminally.

This theory studies memes, not from a memetic point of view, but instead from pragmatics' perspective. Pragmatics essentially studies communication in the form of "what the speaker means" which means that communication not only depends on what the speaker has said but also what the speaker meant by what he said. When we interpret memes, we don't take texts or images as they are, we interpret the meaning behind the text or image and even find their reference to current or historic events.

Some people may disagree, but I believe that it has indeed become quite difficult for people to express their opinions freely without getting backlash from offended people. Sometimes, the opinion might not even be expressed to offend someone, but so-called "critics" are ready to pounce on you any time and point out mistakes or feel hurt very easily. Humour, in such cases underplays harsh jokes and is used as an easy way of communicating strong opinions. Even though political memes or memes relating to religion may still get backlash, their humor often persuades even the offended party to only take them as a joke, which they actually are.

It is important to note that, understanding memes as a speech act is more complex than what it may seem. Communication through memes could lead to misunderstandings, make us question the government or even the existence of God but this study assumes that social media users are knowledgeable and aware of the usage of memes and "memers" use their creativity wisely to communicate through memes.



Josh Swain from Tucson, Arizona created a group chat with hundreds of Josh Swains from America, urging all the Joshes to meet at a set of coordinates given by him and compete for their right to use their name. Despite the title's suggestion, the fight wasn't exactly a battle and was a light-hearted event wherein the melees were actually pool noodles to ensure safety. The Wall Street Journal called this Internet Meme a "global phenomenon" because it makes us realize the importance memes hold in the lives of today's teenagers.



Even though the Battle of Iosh was apparently safe and no one was hurt, imagine if it wasn't a lighthearted event. With the way the influence of memes is increasing by the years, the battles could be about anything and may even cause some serious consequences. This is just one of the many examples of how memes have shifted from just being images and texts to actual real-life phenomena. Advertisers and businesses like Netflix, Disney, etc. extensively use memes as one of their crucial marketing strategies. All this makes me wonder how much more can memes evolve and influence us and hoping that they don't cause us any harm in the process.



19

FAST FASHION:

A Facinorous Facade



Gone are the days when only two fashion cycles a year existed - Spring/Summer and Autumn/Winter. Today, the motive of fashion brands is to push out the latest styles into the market as soon as possible, leading to almost 52 'micro seasons'. This model of inexpensive clothing draws inspiration from catwalks and current trends to produce garments almost instantaneously to satiate consumer demand. The New York Times coined the term 'fast fashion' in the 1990s, when Zara, a Spanish fashion brand, first arrived in New York. It described Zara's lightning speed production model that made the trendiest clothes available in stores within two weeks of its design inception. After Zara's success, more such retailers began producing clothing in record time.

Fast fashion items dominate the space available in our closets. In recent years, the grip that fast fashion has on us has tightened tremendously. Its rampant promotion has led many others to fall prey. In fact, 'retail therapy' is a concept that has been on the rise ever since it has been popularised & glorified by the media. Earlier our fashion choices were influenced by various celebrities including actors, musicians and even runway models. While these public figures still play a major role in setting trends, new-age celebrities called "social media influencers" have taken the fashion scene by storm. These 'influencers' that many idolise, upload videos of unboxing ridiculously massive hauls of clothing & accessories. These videos gain an unbelievable number of views and responses which again is a testament to just how large an influencer's reach is in a world governed by social media.

A common factor between fast fashion and social media is instant satisfaction. While influencers receive feedback and money from social media engagement, their followers receive satisfaction



from purchasing the "in thing". This business model encourages one to keep up with trends in order to fit in with others and reiterates the idea that repeating an outfit is a fashion faux pas. This ultimately forms a perpetual cycle of overproduction and consumption of fashion, making the industry one of the world's largest polluters'.

The glamorous façade of this industry masks the unethical practices & exploitative conditions that factory workers are compelled to endure, eventually taking a toll on their health and well-being. Almost 97% of fast fashion is manufactured in developing countries (like Bangladesh and Vietnam) with poor labour laws and minimum human rights protection. These clothing items are mass-produced in sweatshops under dreadful working conditions. Factory fires and accidents are common in these sweatshops and have claimed the lives of several garment workers. Approximately 80% of the workers in these factories are young women who are paid unsustainable wages despite putting in 14-16 hours of work every day. Furthermore, this industry heavily employs child labour. An estimate claims that 168 million children aged 5 to 14 are forced to work in terrible conditions, often involving abuse. The recent pandemic has only worsened the plight of these workers whose wages are now further delayed and at times denied altogether.



Compromised working conditions, exploited employees and neglected safety measures make up just the tip of the iceberg. The industry is nothing less than a propagated tsunami that wrecks every associated element both directly and indirectly. The prime victim of this is mother nature yet again. It isn't baffling that an industry which is responsible for 10% of global carbon footprint recklessly continues to ravage our water bodies and landmasses.

Driven by profit maximization motives, factories release untreated water directly into water bodies. Toxic dyes and microplastics (which is a by-product of processing synthetic fibres like polyester and nylon) contaminate surrounding freshwater resources.



Moreover, landfills keep getting saturated with discarded and worn-out clothing. To make matters worse, synthetic fibres just like plastic refuse to degrade and the leaching of toxic dyes suck out all life from the soil. This contamination not only interferes with the marine and soil ecosystems but has also come to be the leading cause of cancer, impairment, intoxication and retardation among local inhabitants. Certainly, if this crisis remains unaddressed, it's just a matter of time before we first-hand experience the impending doom.



Just as much as we need businesses, they need us and only once we capitalize on this power will we be able to ensure healthy trends for ourselves and our planet. Our individual choices and preferences though seem insignificant, when cumulated determine the very existence of any business. So instead of rolling eyeballs when someone repeats an outfit in a wedding or party, let's support the cause by opting for rented garments. Coming from the land of festivals and extravagant marriages, our efforts in this direction are surely going to make a huge difference in regulating textile waste. This will also ensure we lend our support to thrifting and upcycling businesses. It's only when we normalize re-wearing, will we truly be able to counter fast fashion.



Although synthetic fibres are super cheap and tempting to shop, it is high time we realize our responsibility towards the environment and thus invest in natural fibres and long-lasting fashion options. It's crucial to ponder, question and counter the prevailing shallow yet glorified perceptions about shopping like - 'Life is short, buy the dress' and 'Life isn't perfect but the outfit can be' because our ignorance and neglect come at the expense of countless lives.

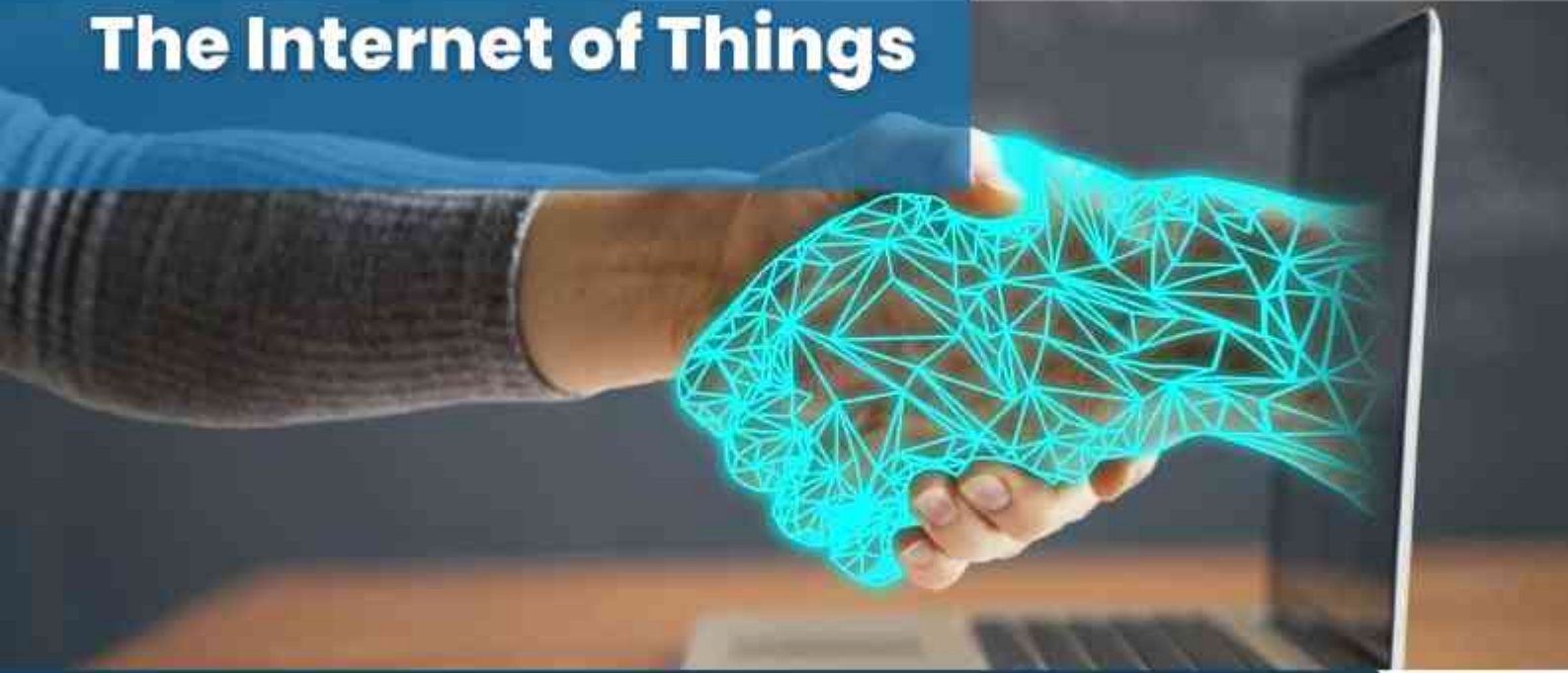
The fast fashion industry has bounced back despite the Covid-19 pandemic and the lockdowns associated with the same.

Companies have seen a boost in online sales due to the prolonged restrictions and are now offering casual, active & loungewear at slashed prices. While we criticize fast fashion and its impact on society, we must acknowledge that sustainable practices will require sufficient time and capital. It is still a niche market that isn't as accessible and affordable as fast fashion is. Nevertheless, as individuals, we should start taking small steps towards sustainability. There is gravity to what Yves Saint Laurent once said,

“*Fashions fade, style is eternal.*”

~ Shuchi Shekdar & Avijeet Khurana

The Internet of Things



Wouldn't things be easier if they took care of themselves instead of having us run around town like characters in a video game, skip, hop, and jumping from one challenge to another? For example, waking up in the morning and having our coffee machine turn itself on and serve us a steaming cup, ready to start our day, our showers knowing just the right temperature to set the water at, the fridge sensing that we're missing our favourite yoghurt and ordering some on its own or our computers and drives automatically setting themselves up when it's time to sit down for work?



Given the pandemic, imagine our house ordering medicines and essential supplies without having us go out to the store in person. It sounds utopic, but it is not a distant reality. We're already witnessing some of humanity's finest achievements. One such winner atop; the Internet.

WHAT IS THE IOT?



We've witnessed the debut of mobile networks, Bluetooth, wireless connections, smartphones, smart TVs, laptops, tablets, smartwatches, cameras, and top tier processors that could potentially run an entire city throughout the years. Paired with a decreased cost, connecting appliances has skyrocketed, providing more facilitated luxuries in nearly every household. The Internet of Things can be called a hub or a station where every device halts to connect and share data to co-work with our phones, laptops, and computers. It's the on and off switch to smooth living. In simpler words, the Internet of Things is a conversation between our devices. A conversation that analyses our habits and co-exists accordingly. It creates an ecosystem where one's devices work in sync with each other.

CONNECTED OBJECTS SEEN AROUND US

If you've ever been to a paint shop, you'll see a machine set up to mix colours of our choice to create the exact shade/tint we have in mind. Coffee and tea machines in lounges, which serve us our desired beverage with a few clicks and taps here and there. Security systems that recognise intruders within a few seconds, headphones that instantly connect to the closest device to save time, thermostats that change the temperature by reading the ambient atmosphere, servers that transfer files from one branch to another, countries afar, lights that dim and glow based on our position, and several such



appliances that ease our lives by simply working on their own intelligence. Were these devices to be connected through one source, one powerhouse, they would function systematically and their codes would be written on a single, secure, and controlled panel. Keeping efficiency as the primary objective, the Internet of Things strives to connect things to things, to users, thereby connecting users to users. This would pave the way to a sort of shield/dome personal to every user who wants to have a set of devices connected and ready to use at command.

ADVANTAGES



Without a doubt, efficiency, facility, and systematism are the blatant advantages. In addition to those, productivity among users, transparency, work safety, detail-oriented function, educative media for IT researchers, AI researchers, engineers, architects, designers, and several interlinked occupations and their employment, healthy investment opportunities, and concrete memory/traces of all data are fairly beneficial factors of the IoT. As free-spirited and fast-paced humans attuned to convenience at every doorstep, we are likely to ease into this one-man-institution connecting a majority of appliances and use it to our choices to live a hassle-free life. It will enable a predictable and enclosed lifestyle. There will be an amelioration in the online performance, economic estimations will be captured easily, and there will always be a result waiting for us (to further decide upon).

DISADVANTAGES



As inviting and magical as it sounds, the IoT has its fair share of shortcomings, some of which can make or break the lifestyle of the user. Sitting at the apex are security and privacy. Handing one's entire life to a lifeless instrument is a thin line of trust formed based on our satisfaction derived from a list of experiences with technology. While the Internet provides us with basic guarantee and accuracy, there's no foretelling a loophole shattering an entire system, upon which more than half of the world is dependent. In a way, one's dependability on the Internet has a great chance to lead to a downfall. Moreover, the upliftment of one portion of the population will gradually override the areas unlinked to the Internet, and eventually creating a desolate section in the world devoid of the facilities most can profit from.

ON AN ENDING NOTE

Placed on a realistic pedestal, the IoT aids those in need for a sequential and living. But, as all things pay their due price, mortal lives like ours cannot withstand permanence, especially one that holds our life's letters and numbers as veins hold our blood.

~ Soha Deshpande

THERE IS NOTHING CRYPTIC ABOUT CRYPTOCURRENCY



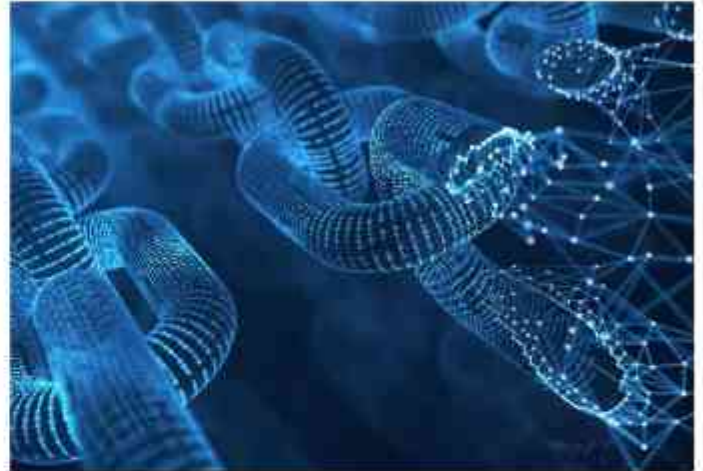
Ever since the Bitcoin boom of 2017 when the value of 1 Bitcoin went as high as \$19,783, let's just say the price of the Bitcoin wasn't the only thing that boomed. During this period there were a million searches ranging from "what is Bitcoin", "how can I buy Bitcoin" and even "can I buy pizzas with Bitcoin". But to answer all these questions and develop an understanding about what Bitcoin really is, we must understand what cryptocurrency is. One must realize that Bitcoin is a form of cryptocurrency. Therefore we can have many types of cryptocurrencies like Ethereum, Cardano, Binance coin, and not to forget our most famous personality, Bitcoin.

CONCEPT

The concept behind cryptocurrency focuses on the objective of eliminating the middleman in the financial sector or to put it simply, banks. Therefore you can visualize banks as being the greatest enemy of cryptocurrency and vice versa. What cryptocurrency wants to do is decentralize the concentration, transfer and recording of where, how, when and where our money goes. In our current system, all our money is in the bank and from the bank in some form or the other, be it loans or deposits. The role of the bank is supreme here and undisputed. However since the Financial crisis of 2008, there has been a lot of doubt and mistrust surrounding the banks. This led to calls for financial reforms in the banking sector to the

overhauling of the complete system. Things radically changed in 2009 when the first decentralized cryptocurrency, bitcoin, was created by presumably a pseudonymous developer called Satoshi Nakamoto. The person is still anonymous today and more mysterious than what goes on in Sentinel Island. However what he did completely changed not only how we see money but the entire financial sector. In essence what he had done was create a block chain which is a vast network of computers all connected to each other through a server. In this server was a ledger that was the same throughout each and every computer of the server. This ledger basically records each and every transaction that takes place with

Bitcoin in any place and time. For all you non accountancy folks, ledger is a book of accounts that records transactions in a T format that is debit and credit aspect of a transaction. Therefore by creating this server through blockchain, what Satoshi Nakamoto did was remove banks from the equation. People need not store money through deposits in banks as blockchain will do that, loans could also be obtained through various crypto lenders in the server. In other words, he cancelled the \$8.6 trillion worth Banking industry[1]. Not an easy feat trust me. But all this is irrelevant if one does not know how to earn or acquire Bitcoin. Earning Bitcoin is a complex process



This process is called mining or Cryptocurrency Mining to be specific. So to earn bitcoin, one has to be a miner of cryptocurrency. What a miner does in essence is verify the transactions in the ledger and as a reward he gets a generous amount of bitcoin. Sounds easy right ? Seems about just any Tom, Dick and Harry can earn bitcoin easily. However there is a catch. This verification process or mining can only be done with the help of very advanced computers which costs lakhs or rupees on an average.

Not so easy now is it ?

PROBLEMS



Although this plan seemed sound and plausible for a worldwide implementation, it never really took off in the initial stages. The whole thing was perceived to be a Ponzi scheme. People were rather perturbed with the fact that there was no central authority to regulate the supply and demand of bitcoin. Nevertheless Bitcoin amassed a small following which slowly grew over

the years since its inception. However bitcoin faces significant issues, the first and foremost being its fluctuating and unstable nature. As mentioned in the starting that there were times when Bitcoin prices shot through the roof, irony being a few days later it crashed through the very roof into the ground. This kind of rapid price changes does not make it feasible for people to acquire bitcoin, especially those people who are vying for stability.

Therefore the stock market or gold market will seem a much more safer option. Another major concern is the murky nature in which the funds can be transferred without much scrutiny from one account to another. This becomes problematic especially in the context of money laundering, financing terrorism and corruption. This problem is not faced with fiat money where each and every transaction, transfer and paper of money can be traced. This leads to our third problem, that is the extra-legality of the whole issue. The real problem is there is no legal framework to deal with cryptocurrency. Making new laws and provisions would mean detailed research into and already secretive system. The *raison d'être* of cryptocurrency was to stay out of government regulation and facilitate private transaction. Making laws on the same is an antithesis to what was promised.



Nevertheless countries like the U.S have made a regulatory framework which has a minimal role in the overall scheme of things. Some countries like El Salvador has even made Bitcoin a legal tender. However most if not a vast majority of countries continue to be on the fence about Cryptocurrency. India for example still has not made any sort of laws regarding the same, only coming to attack the very concept of cryptocurrency in regular intervals. Prompts from industrialists and entrepreneurs like Elon Musk have also contributed to the increasing popularity of Bitcoin and other cryptocurrencies.

CONCLUSION



Bitcoin and Cryptocurrencies in general have revolutionised not only the financial but also the technological arena. It has created a new platform all together where people can make a living through cryptocurrencies. Although it is a relatively new concept, it has garnered quite a lot of following in the past few years and more so yet to come. Nevertheless, it is viewed with suspicion by many groups be it governments, companies and normal citizens. It is yet to shed its secretive way of functioning in the eyes of many. It further poses risks relating to unaccountability, licensing and functioning. All said and done, we cannot deny the growth of bitcoin. The stakeholders such as Governments, financial institutions and companies must realise that cryptocurrencies are now a reality and cannot be ignored. However all things that go up must come down. It won't be long before we see another alternative to Bitcoin or cryptocurrency as a whole. For now however, Bitcoin is to say.

~ Sidharth Rajee Nair

REFERENCES

1) Fast Fashion: A Facinorous Facade

- <https://goodonyou.eco/what-is-fast-fashion/>
- <https://www.edology.com/blog/fashion-media/rise-of-fast-fashion/>
- <https://theboar.org/2020/11/influencers-glorifying-fast-fashion/>
- <https://dailyutahchronicle.com/2021/06/18/the-promotion-of-fast-fashion-from-influencers-is-problematic-and-unsustainable/>
- <https://in.apparelresources.com/business-news/retail/22-season-retail-calendar-know/>
- <https://www.linkedin.com/pulse/myth-sustainable-fast-fashion-ambika-singh>
- <https://www.dosomething.org/us/facts/11-facts-about-sweatshops#fn11>
- <https://www.firstpost.com/living/fast-fashion-mental-health-impact-how-sustainability-upcycling-can-help-reduce-environmental-psychological-stress-9473031.html>
- <https://www.newstatesman.com/politics/2020/10/why-even-pandemic-couldn-t-kill-fast-fashion>

2) There's nothing cryptic about cryptocurrency

- Economic times, 'Planning to Invest in Bitcoin, other cryptocurrencies ?
- Investopedia, 'How Does Bitcoin Work'
- Moneycontrol, 'Winds of change, Cryptocurrency trends you Absolutely Need to Know'
- South China Morning Post, 'Cryptocurrency crackdown looms as states enter digital states'

3) Cyber Warfare: A New Face of War and Conflict

- Hanna, K. T., Ferguson, K., & Rosencrance, L. (2021, May 21). <https://searchsecurity.techtarget.com/definition/cyberwarfare>
- Kaushik, K. (2021, April 8).
- China has capability to launch cyber attacks: CDS General Bipin Rawat. The Indian Express. <https://indianexpress.com/article/india/china-has-capability-to-launch-cyber-attacks-cds-general-bipin-rawat-7263541/>
- Sheldon, J. B. (2016, May 25). Cyberwar. Encyclopedia Britannica. <https://www.britannica.com/topic/cyberwar>

4) Evolution Of Memes: Survival of the funniest

- <https://www.digitalinformationworld.com/2020/12/instagram-says-that-1-million-memes-are.html>
- <https://appliednetsci.springeropen.com/articles/10.1007/s41109-021-00358-7>
- <https://www.tandfonline.com/doi/full/10.1080/10350330.2017.1303020>
- <https://www.bbc.com/news/world-us-canada-56886857>

5) Clickbait

- <https://glintadv.com/2017/01/10/psychology-in-advertising/>
- <https://www.lean-labs.com/blog/psychological-marketing-tricks>
- <https://adespresso.com/blog/marketing-psychology-sell-more/>
- <https://www.stevenagefc.com/news/2021/may/burger-king-partnership-success-stevenage-fc-sky-bet-league-two-efl-english-football-league-wednesday-19-may-2021/>

6) An Overview of NFTs and the Indian Reaction

- Ethereum Energy Consumption Index. (2021, December 30). Digiconomist.
- <https://digiconomist.net/ethereum-energy-consumption/>



ACKNOWLEDGEMENTS

Chief Mentor

Dr. Hrishikesh Soman

Teacher-in-charge

Dr. Neha Agashe

Editors in chief

Nadia Musavi, Srishti Sinha

Designers

Aboli Acharya | Anushka Sharma | Sakshi Patil | Siddhi
Changediya | Spandana Sen | Manvi Kataria | Meghana Warriar

And our heartfelt gratitude to our teachers, Dr. Shweta Kapoor, Dr. Pooja Prabhavalkar, Assistant Prof. Vidhi Kalra and, Assistant Prof. Nisha Gangola, for guiding us and supporting us throughout.