

## humanizing technology

## Editors' Note & Credits

Dear Reader,

We perceive technology restrictedly, viewing it as an emotionless instrument that is incapable of looking beyond 0 or 1 or understanding beauty. However, with the increased involvement of designers, directors, and musicians in the field of technology, artistic expression has been entailed in its very core. It is remarkable how something that is seemingly inhuman and metallic – technology - blends into harmonious coexistence with that which is the very essence of our being – art and music. This issue of the Techkey captures technology as something that is not anti-human but something that has become an indispensable part of our lives. It discusses how interwoven art and technology are and how they refine and define each other.

We are thrilled to reintroduce "Techkey Teaches" – a column that will help you navigate through trending applications and websites. A few articles have been converted to videos by our multimedia editors: Aadya Poddar, Avani Jindal, Rashi Baid, and Kashika Jain. Technology has left an indelible mark on filmmaking and literature as is evident from writings such as The Bicentennial Man and just about any piece of film created in

Explore the evolution of music and the use of AI in producing it, the artistic genius of Instagram creators, the ever-growing fandom of NFTs, the far-reaching impact of social media on journalism and art as well as debates on whether technology is taking us away from traditional art. Prepare to be flabbergasted by robots who can replace your dance partners, cyborgs who can hear colours and the mind boggling similarities between Dadaism and meme culture.

From the spice rich sandy deserts of Dune to the infinite multiverse of Marvel, may the force (of active reading) be with you as you transcend space time to explore the use of technology in various fictitious galaxies. To put it dramatically, you will witness how technology connects the so-called soulless and robotic with the purest creations of the soul – art forms (be they visual or performing, written or spoken). Happy reading!

Ritvi and Himanshi



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Technology and art have been inextricably intertwined throughout history. From the pyramids at Giza to St Peter's Basilica to the grandest cathedral, humans build not only for function but also intending to form.

Today, the word "technology" evokes a completely different interpretation. It inspires visions of whirling lights and bundles of wires. Similarly, the word "art" has also transformed. Conjuring up thoughts of digital art as well as traditional paintings and sculptures. Computers are the new face of this relationship, where architecture is perhaps the best example of this fusion between art and technology. They are intimately intertwined in the sense that as one develops, the other does as well. This entails not only changes in the way art is created, but also in how it is evaluated, valued, and ultimately sold.

Technology and art appear to be on different ends of the spectrum at first glance. Many art teachers may perhaps be hesitant to use technology in the classroom because they are concerned that it may supplant traditional artmaking methods. However, modes of learning are critical. Ask yourself, "How can I utilise technology to enhance the artmaking process?" rather than seeing technology as a tool to replace traditional artmaking. The museum, as a site of culture, education, and ideas, must cater to the needs of include current audiences, which nearly universal and engagement multilingual communication. Apps, QR codes, touch displays, virtual and augmented reality, and other interactive



technologies are being used by an increasing number of museums to facilitate the easy and direct conveyance of information. Museums have understood the relevance of interactive technology employed in their displays as a result of the rapid development of digital entertainment.

The world is slowly coming to terms with the fact that technology can indeed, be as personal and intimate as old-school art. And the union of the two may lead to something great. For example, in October 2019, the Louvre in Paris, one of the world's most famous museums, presented its guests with a virtual experience of Renaissance artist Leonardo da Vinci. Visitors to the Louvre could immerse themselves in virtual reality for seven minutes, seeing moving visuals, and sounds, engaging with Da Vinci, as well as riding on his flying machine. The museum's and curators' visions for this exhibition were realised in conjunction with HTC's Vive Arts programme. You see, while presenting a more immersive experience for the audience, technology has enabled us to give a tribute to one of the greatest artists of all time.

With time, there is a possibility that this union of the two may bring us closer to reality and help us evolve. We're looking forward to seeing where the use of advanced technology in art will take us next. I am confident that it will continue to change the way artists express and share their creative energy in order to inspire and influence humanity's best.



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7 DAYS AGO



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## socialmedia&art



Millennials – or as the internet would call them 'the digital natives are the only reason that the Internet and social media are so widely used now. A lesser-known fact is that the World Wide Web, or as we call it - the internet, was actually created in 1989 in CERN but the Generation Y were the ones to give it its boost in the late 1990s and the early 2000s. Since then, social media and the internet have come a long way to enter the 2020s with a neverbefore-seen use of them.

When the pandemic hit us in 2019, all that was required of us was to stay at home, the internet enabled us to connect over the longest distance possible. Another explosion that the pandemic hit us with was the diverse seeking of lost hobbies in every individual. People around the globe had picked up paintbrushes and pens again. Art has now entered the social media age.

More than 7063 Instagram accounts have been posting their artwork online 4976349 posts and counting. Social media has opened a new door for artists worldwide. Curbing traditional methods of display, social media has empowered artists to speak with their followers about who they are and what they are making. One minute you are drawing the pot laid out in front of you, and the next all eyes turn towards you.

Social Media is not only allowing people to showcase their piece of work, but also to learn and engage with other artists. Take Skillshare, for example, there are 200+ Art Classes with thousands of people enrolled giving them a chance to explore and appreciate different mediums and styles, or even develop a new passion. Alongside, there are several people uploading tutorials, tips, strategies etc. on YouTube, Instagram, Facebook and many more.

Now when all is done, several people who have not only been employed but are also freelancing on the Internet. Like an emerging artist, Genieve Figgis was posting her art on Instagram when Richard Prince took notice and went to help launch her career, land exhibitions and more. Still not convinced? One minute artist Dan Lam was teaching at a community college and the next minute she was sending a piece to Miley Cyrus and being featured at Art Basel.

The worst thing to do with change is to deny that it's happening and hold on too tightly to the past. The traditional art world is changing, but it may be for the better! When social media has become just but an extension of ourselves, it will be silly to ignore its impact. Lastly, Andy Warhol once said, "They always say times change things, but you actually have to change them yourself." Of course, he had no idea how we would change the art world and we are yet to learn what generations beta and gamma have in store for us.

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## DEEP-FRIED DUCHAMP AND UPTURNED URINALS DADAISM & MEMECULTURE

'Each thing has its word, but the word has become a thing by itself... The word, the word, the word outside your domain, your stuffiness, this laughable impotence, your stupendous smugness, outside all the parrotry of your self-evident limitedness. The word, gentlemen, is a public concern of the first importance.'— Dada Manifesto, Hugo Ball (read at the first public Dada soirée, Zurich, July 14, 1916.)

It is perhaps one of the toughest tasks to explain the essence of a 'meme' to someone who has not experienced the feeling of that fleeting endorphin release as you stare into your phone with a stock photo of a white Dwinterlude dog staring back. Thus, I will borrow from Oxford Languages, which defines a meme as 'an element of a culture or system of behavior passed from one individual to another by imitation or other non-genetic means.' This is an interesting definition because it helps us take a step back and truly reflect upon the origin and implication of this mammoth cultural phenomenon. What started this absurdist humor was, to put it simply, disillusionment. It has been observed that a marked increase in these more nonsensical memes appeared at a time of universal political turmoil and social unrest, as younger generations grew markedly frustrated with the systems they had inherited and were expected to continue. Wage stagnation, the cessation of upward mobility, and overall degeneration of human rights made absurdist humor almost like a way to cope by embittered millennials, as they took the technology created and purposed for a certain rhetoric and repurposed it.

Both the origin of modern-day absurdist humor (read: a meme) and its fundamental notion holds uncanny similarity to an art movement— or rather, an anti-art movement— which attributes its inception to the horrid era of World War I Europe. A bunch of artists were super annoyed about the senseless war raging around them, as it confirmed the degradation of social structures that had led to and endorsed the war in full measure. They believed that 'conventional logic led to the senselessness of a world war' and were anti-art, anti-war, anti-capitalist, anti-authority, anti-empire, anti-logic, and anti-intellectual conformity— standing in opposition to already-established norms of composition and structure, and you're halfway there. As Sam Grezes points out, 'A society that victimizes its own vulnerable elements doesn't deserve context, humor, or decadence, the artists insisted. That society instead deserves nonsense.' (sic.) Dadaists aimed to cause deliberate confusion to their viewers by their absurd, context-less pieces, often by using symbols in mainstream culture and appropriating them for their own purpose. The entire essence of this movement strikes an instant resemblance with the multitudinous memes today that often remodel popular motifs in entirely different contexts to effectively subvert an audience's expectations. This abrupt change from a well-known joke is really where the humor lies, as it challenges conventional thinking much like what Dadaism aimed to do. The chief intent of both these mediums is to cause a reaction to their viewers— in which they excel masterfully.

However, the similarities don't cease here. Much like the parallels found in the two phenomenons' origin and their intent, there also appears to be a similarity in the medium. Take photomontage, wherein pictures are cut out from written media to create a collage that isn't contextually or narratively linear and yet expressive in its themes. The alongside piece, titled 'the Pretty Girl' by Hannah Hoch, is a typical example- however, this image is not accidental in any way (though some photomontages were created with the intention of exploring randomness in creative expression.) It is visual deterritorialization, an act of hijacking prominent meaning and cannibalizing it to suit one's intent. Heartfield started this technique by recontextualizing images produced on a large scale in print media. Here too, the context was key in the image's interpretation, as the irony lay in the images' disfigurement and displacement. The same can be said for the memes of today, an endless remix of the same image, relying on their sheer familiarity to generate humor, displaced and replicated repeatedly—just search up 'How to Talk to Short People' on Google once. Another technique comparable to present-day memes is the concept of 'readymades', which were manufactured everyday objects presented as artwork by little manipulation by the artists. The most famous example of this is the cleverly named 'The Fountain', composed of a standard urinal signed 'R. Mutt'. That's it, no catch. At first glance itself, it reminds the reader of the memes that are essentially just stock photos slapped on hilariously low quality or deep fry. Here too, it is the concept of deterritorialization that is imperative to the work's perception- to put a familiar object under such different circumstances that it becomes hilarious.

The purpose of this analogy is not to equate the two movements or their creators in any way. It neither covers the full extent of the two nor their implications and is incomplete in itself. I simply find it interesting to note these similarities, for they are naught but exhibits of human behavior. Somewhere between sitting in a tedious History lecture about long-gone civilizations, we forget that we are studying our own ancestors, our own species, and as the drumbeat of history marches on, we remain the same. Yes, the advent of technology has brought in an unprecedented change that is likely to alter our very nature, but it remains that there are some things we just will never lose. The capability to make absurd, irrational, illogical art will never leave us, whether that may be slapping some pins on iron or a cat filter on mid-speech Musk.



Das schöne Mädchen (The Beautiful Girl), 1920

# **ROLE OF NFTS**

NFT ART HOLDS THE POWER TO TRANSFORM THE CREATIVE INDUSTRY. ITS EMERGENCE IS JUST THE BEGINNING OF A NEW ERA IN THE JOURNEY OF ART. TRADITIONALISTS WILL ALWAYS LOOK DOWN ON THESE NEW EMERGING DIGITAL ART FORMS, YET IT IS ART'S ONGOING EVOLUTION THAT HAS BROUGHT IT TO WHERE IT IS NOW. THE CHANGE THAT TECHNOLOGY BRINGS ALONG WITH ITSELF IS INEVITABLE, SO INSTEAD OF CRITICIZING IT, IT IS TIME TO EMBRACE IT AND SEE WHAT IT HOLDS FOR US IN THE LONG RUN.

In 2021, "Everydays: The First 5,000 Days," a piece of digital artwork, found itself alongside works by Picasso, Van Gogh, and Monet. Its associated NFT was auctioned at \$69.3 million and was listed among the most expensive works by a living artist. With the evolution from conventional to modern art, people have started questioning the value of these new media art forms that are coming up.

What exactly is an NFT, and how is it taking over the art world? The full form of NFT is a 'non-fungible token', which means that it's unique and can't be replaced with something else, somewhat like a one-of-a-kind trading card. They are virtual assets existing solely in the digital universe— you can not touch them, but you can own them. They come in various forms ranging from drawings and GIFs to music tracks and videos.

#### But is it possible for someone to just download the image of the NFT from the internet instead of paying millions of dollars for it?

It is - you can copy a digital file as many times as you want- but NFTs are designed to give you something inimitable, i.e ownership of the work. To put it in terms of physical art collecting, anyone can buy a Van Gogh print, but only one can own the original. After NFT art is created, it is 'minted' or tokenized on Blockchain, the cryptocurrency service. "Tokenizing" these real-world tangible assets allow them to be bought, sold, and traded more efficiently. This Blockchain system is very difficult to hack or scam, which means it is extremely useful for tracking copyright ownership of the NFT.

NFTs are a huge step forward in the art world. Artists no longer have to rely on galleries or auction houses to sell their art. Now, they can directly sell to consumers as an NFT and gain formal recognition for their work. NFT art collection is also a user friendly and secure way to get people who are not too knowledgeable about art interested in the art world, as buying and selling NFT art can be done with the click of a button. Through NFTs, awareness is being spread about the new virtual art forms that are developing in today's progressive world.



# **REFLECTIONS ON** *The Bicentennial Man*

Literature acts as a lens for futuristic vision of technology. It is amazing how Sci-fi writers like Asimov could foresee the future. 'The Bicentennial Man' features as one of the 11 short stories which was later expanded into a novel called 'The Positronic Man' co-written with Robert Silverberg. It went on to win the Hugo Award and Nebula Award for best science fiction novelette (1976). It was converted into a Sci-fic comedy-drama movie in 1999 - starring Robin Williams, Sam Neill, Embeth Davidtz and Wendy Crewson.

This story takes us through the 200-year life of a robot searching for identity, friendship, love and ultimately humanity. Programmed to be a domestic servant in the Martin family, NDR-113 (Andrew) the positronic Robot designed by US Robots is the focal point with everything told from his perspective.

Andrew learns that he is more than just a machine. Unlike his fellow robots—he has a unique personality, will and feelings. Over the years, "upgrades" provide him with enhanced facial expression, then a human-like skin and organs, but he's still a robot. So he sets out on a journey to become recognized as fully human. The plot deals with issues of humanity, slavery, prejudice, maturity, intellectual freedom, conformity, sex, love, mortality and eternal life.



#### THREE LAWS OF ROBOTICS

- 1. A robot may not injure a human being, or, through inaction, allow a human being to come to harm.
- 2. A robot must obey the orders given it by human beings except where such orders would conflict with the First Law.
- 3. A robot must protect its own existence as long as such protection does not conflict with the First or Second Law.

## ~A Book Review

In a lighter tone ultimately it makes us think about how we evolve through our life, from being an innocent child with core human values and morals to a complex individual taking situational decisions, sometimes good and other times not so good but rationalising them from one's own perspective.

Asimov piques our thoughts on freedom by his observation, "There is no right to deny freedom to any object with a mind advanced enough to grasp the concept and desire the state." He forces us to think about what it means to be human, "With great power goes great responsibility, and if the robots have Three Laws to protect men, is it too much to ask that men have a law or two to protect robots?"

Is it our facial expressions, our ability to eat, having communication skills OR our thoughts which govern our actions, which make us humans? If humans have the special position to be the wisest.. they simultaneously have as much responsibility towards everything around them. It's an engaging and thought-provoking book I would recommend it to all and give it a 4.5star rating to this book. Co-dependence is fundamental. Fiction borrows from technology in the same way that technology borrows from fiction. This article explores the influence of technology in some of the most popular fictional cinematic universes and how technology in the real world takes inspiration from this fictional technology.

# FICTION and TECHNOLOGY

Set in the vast universe - spread through multiple galaxies, generations, and timelines - the Star Wars series in its crux is the fight of the Galactic Empire and the Rebel Alliance. The films and books revolve around the 'one with the force'. The force is a mystical energy field that surrounds all and binds the galaxy together. It stays in perfect balance between the dark and light sides. The Jedi are the ancient order of beings that can manipulate the light side of the force; they function as peacekeepers. The Sith manipulate the dark side of the force; in a pursuit to gain power and planets. Familiar names like Luke Skywalker, Princess Leia, Han Solo, Chewbacca are part of the rebellion. While Darth Vader, Kylo Ren, Emperor Palpatine, etc. are a part of the Dark Side. It's a classic good versus bad story (with family dynamic drama), set in outer spaces, with technology which one couldn't imagine then.

But today that same technology which could only seem like fiction is emerging in the real world. Holographic displays are very known to man, but many don't realize their origin is owed to these films.

The idea of the hologram came from the use of holographic messages used by bots like R2-D2 in Star Wars. Even hoverbikes came from the film's Lazareth LMV 496. The same goes for bionic arms, laser cannons, and battle droids.





The marvel universe covers the Avengers (the original team consisted of Iron Man, Captain America, Hulk, Thor, Black Widow and Hawkeye), Guardians of the Galaxy, Black Panther, Ant-Man, Spider-Man, Vision, the Wasp, Doctor Strange and many more. And their villains have gone down in history, be it Thanos, Ultron, Green Goblin or Loki. And when there's a series that has been in existence since 1939, which covers superheroes and evolved technology, then a lot of the world we know today is bound to be influenced by them.

- 1. Mark Zuckerberg's Jarvis: Mark Zuckerberg built his very own Rather Very Intelligent System) from the movie Iron Man.
- 2. Spiderman's gloves: Stanford engineers were able to come up stick to the wall and climb it.
- 3. **Thor's Hammer**: The concept of Thor's Hammer, Mjolnir, was lightning.

artificial intelligence assistant inspired by JARVIS (Just A

with something called the 'gecko gloves', making what Spiderman does a possibility. These gloves allow the wearer to

adopted by a military contractor called Applied Energetics. The company has used a laser and beam system to create artificial



Created by Douglas Adams, The Hitchhiker's Guide to the Galaxy is a comedy science-fiction franchise that explores the misadventures of Arthur Dent. Earth was demolished by a Vogon constructor fleet and Dent is the only man who survived. In his travels, Arthur learns that the Earth was actually a giant supercomputer, created by another supercomputer, Deep Thought. In 1979, this universe of technological advancement attempted to wander into futuristic realms of science fiction, and introduced us to some mind-boggling technology as discussed below:

1.Babel Fish – an overarching translator of sorts, the Babel fish is a seemingly-ordinary looking bright yellow fish with mystical powers. When it is placed in someone's ear, it converts any language into their first language and the listener can understand what is being spoken to them in a completely foreign language. Google Translate can in fact be though of as a primitive form of the Babel fish. If a device with such capabilities is invented it will undoubtedly change the landscape of communication and travel forever.

2. The Infinite Improbability Drive – a tremendous method of crossing interstellar distances in almost no time, without "tedious mucking about in hyperspace," the Infinite Improbability Drive was a form of propulsion which would pass through every conceivable point in every conceivable universe simultaneously as soon as the drive reaches infinite Improbability.



Set in 10191 AD, in the spice-rich desert of planet Arrakis, Dune (a graphic novel by Frank Herbert that has been adapted into films multiple times) boasts of a series of technological devices different from modern computers and mobiles but much more elegant and complex.

1.Sand Compactors: Created by the Fremen – the native tribes of the desert – to facilitate their survival in the harsh environment of the desert, sand compactors use static electricity to bind the sand in place to create tunnels to crawl out after a sandstorm.

2. **Still suits:** Perhaps the finest creation of the Dune franchise, still suits are full-body garments of Fremen-make which carry out the functions of heat dissipation and filtering bodily wastes. They also retain and reclaim moisture from the body. If humans manage to replicate something even close to the still suits in Dune, it would be a blessing for those looking to travel to or live in the harsher places on our planet.

3. **Ornithopter:** Similar to helicopters in the real world, ornithopters are grandiose flying machines. They serve as the primary mode of transportation in vast deserts of Arakkis. Frank Herbert describes them as, "aircrafts capable of sustained wing-beat flight in the manner of birds."

# THE USE OF TECHNOLOGY IN

Motion pictures have always been an accessible and beloved form of entertainment for people all over the world. They enable people to travel the world and experience happiness, grief, tragedy and every emotion from the comfort of their homes or in the quietness of the theaters.

Since the introduction of the first motion picture, Roundhay Garden Scene in 1888, the film industry has developed a lot and continues to inspire innovations to capture the audience's attention.

> In recent years, various new technologies and innovations have been developed which make such effects possible, making the world of cinema more thrilling and eye-catching.



#### **SECOND SCREENS**

The introduction of multiple screens has provided entertainment lovers with endless means to enjoy their favourite movies. From customizing streaming services for mobile-screens to tablet apps, viewers can have a more profound streaming experience of any content. Moreover, apps designed recently such as, The Men in Black III and The Star Trek app allowed users to connect with their fans globally, gaining access to exclusive content, and intermingling with the marketing campaigns.





#### **CGI (COMPUTER GENERATED IMAGERY)**

1973 The first time computer generated imagery was used in film was in the sci-fi movie Westworld, back in 1973. The subsequent films Futureworld (1976) and Tron then came with 3D, and the rest is history. This was a good time for fantasy and science fiction filmmakers because it provided the right tools to visually illustrate the themes and the world of their characters



CGI for the movie 'Avatar'

Nikon D90

#### **CAMERAS**

One of the major transitions in the movie industry was the switch from film to digital cameras. The ability to record and store information in memory cards instead of chemicals saw a significant reduction in production time and expenditure. The first DSLR camera introduced in 2009 was to shoot at 24fps in HD video (Nikon D90), and since then there has been a noticeable difference between film and digital.

## TECHKEY TEACHES (Spotify



### CREATE A PLAYLIST

Go to the playlist category under 'Your Library' to make a new playlist. Start a brand new playlist by tapping the music symbol with a plus sign at the top of the screen (Android), or by tapping the plus sign (iOS).



There are a couple of ways to build your music library. Adding your favourite tracks to playlists is one way, saving music to your own library is another. Add tracks, albums, artists radio stations, podcasts and playlists by hitting the plus/save sign (either next to the song in the desktop app, or by tapping the three dots on mobile), then access your music via 'Your Library'.

1	in the second	exile (feat. Bon Iver) Taylor Swift, Bon Iver	folklore	Add to new playlist	
2	2	supercuts  Jeremy Zucker	supercuts	My Playlist #5	
3		you broke me first Tate McRae	you broke m-	on the quarantine balcony My Playlist #4	泉
4	*	Dandelions Ruth B.	Safe Haven	Mileya Mileya (From "Happy Ending)	
5	TAL	Somebody To You The Vamps	Meet The Va	Eh	
6	*	Painkiller Ruel	Free Time	Princess Sophia	R
7	9	Wave of You Surfaces	Pacifico	Bollywood masti	坂
8	Ì	What A Heavenly Way To Die Troye Sivan	Bloom	3	8:08





To check who's following you and who you're following, go to your profile symbol in the top left corner. It also displays your most recently listened-to artists as well as public playlists.

	BUILD YOUR OWN
Add to queue	LIBRARY
Go to song radio	
Go to artist	
Go to album	
Show credits	
Save to your Liked Songs	
Add to playlist 🔹 🕨	
Share >	

#### SEE YOUR STATS

#### SHARE MUSIC WITH FRIENDS USING SPOTIFY CODES



Another way to share music is via Spotify Codes. To download a song, scan a code on a friend's phone, or import a code posted by an artist to hear their latest single. A code from a poster, flyer, or billboard can also be scanned. A Spotify Code will show at the bottom of the album artwork if you tap the '...' context menu next to a song. To scan it, hit the 'Camera' icon, or tap the Code-enhanced artwork and save it to the 'Camera Roll' for sharing on social media.

#### MAKE A PLAYLIST TAILORED TO YOUR RUNNING SPEED

Spotify can also recommend songs with a similar tempo to your jogging pace. Start jogging, select a running playlist from the 'Browse' tab, and Spotify will select music based on your stride using your phone's sensors.



Maybe you're putting together a playlist for a wedding or a party for a friend. Create a collaborative playlist and invite everyone to contribute their suggestion, no matter how misguided. When you right-click on the playlist's name, you'll get the option to make it collaborative. Then give friends access to it. Alternatively, you can create a secret playlist.

#### LISTEN USING THE WEB INTERFACE

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Spotify	< >	
Morra	India's Best	

Is it against company policy to install software on your work computer? It's no problem. You may listen to Spotify without installing the desktop software by going to play.spotify.com.



## **IS TECHNOLOGY THREATENING JOURNALISM IN THE NEW MILLENNIUM?**

EDITORIAL NEWS TOP HEADLINES

"The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn." - Alvin Toffler

Journalism today is not like it was a hundred years ago, new millennial journalists must adapt to the pace of rapid change we are experiencing. They need to be fast, decisive, impartial, and technologically advanced to keep up with the fast-moving era without misleading readers. The drastic shift in the new millennium makes the role of journalists a contrasting job of pros and cons, which we will be exploring further in this article. Today the jobs of journalists are being taken over by common citizens. For example,



Important things are happening, but without reputable sources and balanced analysis, we risk devolving into a bickering mob that yells "hang them!" before fully grasping the situation. National protests such as the George Floyd marches in 2020 and the U.S. Capitol riots in January 2021 were covered by citizen journalists from the centre of the action. So, do we need journalists now? Journalists are needed now more than ever because we need trustworthy sources to help us comprehend issues in a world where information is frequently skewed or misleading. Apps such as Facebook-Live allow citizen and entrepreneurial journalists to spread compelling videos attracting large audiences to convey prejudiced opinions where it can go viral without any factchecking. This future of journalism could see emergence of tailored content, the intelligent algorithms, and robot journalists. Journalist platforms are the peak of democracy. Commoners might fear the government but a journalist would always write the truth respecting his freedom of speech. Investigative journalists' careers are suffering as a result of a lack of funding, as the ad income they make for a report is a small fraction of what it costs to produce it.

SPORTS

THE MEWSPAPER

WEATHER CLASSIFIEDS

TWO CENTS

2¢

DAILY

This year's World Press Trends survey, released last month, reports that at least 40 per cent of global internet users read newspapers online and that in most developed countries, readership on digital platforms has surpassed that in print (WAN-INFRA, 2016). While newspapers are a thriving industry in India, newspaper organisations and journalists are adopting new technology in order to remain relevant in a fast changing environment (Chattopadhyay 2012, Panda 2014)The future of journalism is uncertain, technology is helping fraud people to convey fake news to the citizens and not letting them have the liberty to judge and form their own opinions.

> Having access to so much information can put a journalist under a lot more pressure. However, we require today's journalists to sift through that noise and discover the truth. And there's an awful lot of noise.



# COLORS & CYBORGS

Recently, every time I check my newsfeed I've been greeted by an influx of articles screaming headlines like 'The 10 ways the future of humanity will change by 2030', 'Other out-of-the-world technology that will be so common, and 'You could be immortal'- with an existential crisis usually following this one, but this time around I decided to delve into the feasibility of all of this.

This is when I stumbled on the term 'Cyborg'- a combination of the words cybernetic and organism (I was thinking of Darth Vader too) which (evidently) means "a person whose physiological functioning is aided by or dependent upon a mechanical or electronic device". according to dictionary.com. realized how much it had grown beyond science fiction novels- in fact, it was reality now.

A common example of this might be bionic, mind-controlled limbs with sensation. The most interesting case, however, is that of Neil Harbisson- the first governmentrecognized cyborg (with his antenna showing in his UK passport picture), who used this implant to overcome his 'achromatopsia' or extreme colorblindness as a consequence of which he could only see in black-andwhite.



Neil Harbisson

Now, however, he can hear and even dream in color because this antenna is connected to a chip that translates color into sound. Conversely, he also literally hears colors while hearing as such with telephone rings sounding green and Amy Winehouse red and pink. In a recent interview with The Guardian, he is quoted as saying "I can't listen to Da Vinci or Velázquez because they use closely related tones - they sound like the soundtrack for a horror film" which proves that the technology does have its limitations, though.



A child wearing Google Glasses



Vivienne Ming

Ming, in her Quartz article, poses the real question: "What happens when we all want to become superhuman?"

Another compelling case is that of eminent theoretical neuroscientist Vivienne Ming who designed a faceand expression-recognition system for Google Glass to help her autistic son interpret others' facial expressions in real-time social scenarios. Undeniably, in most occurrences of cyborg implants until now the myriad of devices seems to be trying to achieve one common goal: to remove the hindrances that don't allow some to reach the same potential as that of an average, able human.

Now that this technology is becoming our reality, or possibly altering our perceptions of the same, it is crucial to address the more pragmatic arguments against transhumanism too- such as the already prevalent inequalities it will unequivocally widen with only a privileged high class being able to afford such treatment- implants and gene editing might bring about the disappearance of death and diseases (in a few) but, in the long term, also that of intergenerational social and economic mobility.

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Over the last years, the ever-present technology has played a major role in shaping the music of the twentieth century that we hear today. Gone are the days of phonograph, analog tape machines, of rewinding cassettes and carrying around a Walkman. The past decades of rapid innovation in digital technologies have had a huge impact not only the way music is composed, but also in the way we perceive it. Digital technology has brought about a significant change in many aspects of the music business. Early digital recording hardware and software have not only made the recording process cheaper but also easier.

ombined discs clearly improved audio quality for consumers and reduced production and distribution costs. By this time the internet became advanced enough for users to share and download music online.

**M** usic no longer requires recordings of cassettes and CDs and people can download almost any song they want through the file sharing forums - for free. This led to a drop in revenue from the music industry.

W ith the entry of paid digital distribution forums, especially iTunes changed the way digital money was made. Live streaming services like Spotify changed the way people use music. Similarly, 'Autotune' enables an artist to align their pitch

ogic, Pro Tools, Ableton, FLStudios and many such digital workstations, have made the recording procedure significantly easier and cheaper. One can even record and create their music within the premises of their home.

E arlier, if you wanted a perfect musical note from a particular instrument, you had to appoint professionals. If your drumming wasn't on beat, you had to record it endlessly until you got it right. If you couldn't play an instrument, well, making music would be a long haul. But with the help of 'MIDI' i.e. Music Instrument Digital Interface you can easily do that with prerecorded and accurate sounds.

ulti-track recording' allows the recording of multiple sounds at the same time to separate tracks and then later and processes mixes them independently.

This ease of making and recording music has helped many of the aspiring, young and new artists to enter the industry making it more competitive and diverse along with improving the quality of music. In conclusion, creating unique and valuable music is still not an easy task. But the modification of technology has been changing ideas for the creation, recording and distribution of music. Along with the growth of technology at such a rapid rate, the profession of music and outlook of people towards it is also changing. Artists are still in the process of adjusting to the changes being made in the industry and are looking for ways of progressing and standing out in the field. Although the impact is both negative and positive, music still certainly remains a huge part of our society and culture.





# VRTAL MUSCAIS



Alvin, Simon, and Theodore Seville, three chipmunks, managed by their human adoptive father David "Dave" Seville, were the first virtual band formed in 1958. This fictional music trio was backed by voice actors but represented originally 2D by characters. The cartoon next fictional music group to gain popularity was the Archies a decade later and the Gorillaz in 1998. In 2000, with the rise of Vocaloid was the creation of Hatsune Miku and, in 2020, Lilmiquela, who has over 3 million Instagram followers.

The evolution of virtual musicians has gone from incorporating animation and voice actor-musicians to CGI characters and Al-generated music, forming a genre of its own.

With a new AI generated Beatles album, the latter proves to be highly controversial. The AI picks up on the repeating patterns and words to create new music. With Open Al's Jukebox, one could fuse Michael Jackson's voice with Blues music to create new compressed audio based on the raw audio files. This even opens up possibilities for new album tours for dead musicians using holograms or virtual music platforms.

Al-generated music has a long way to go, with copyright law slowly catching up and fans realizing the loss of improvisation and creativity in the Algenerated music. The lack of raw emotions and inspiration makes the music bland and restricted to time signatures and genres. However, with the pace at which technology is advancing in the field of music, the feats AI will achieve remain to be seen (or should I say heard).







However, these robots in question - Atlas, Spot, and Handle, they're named - are far from scary. Their metal bodies and expressionless faces moving along to music seem strangely endearing - inducing a bizarre sense of mirth in the viewer. This impressive feat was achieved by Boston Dynamics, led by Aaron Saunders, who's been involved in the Atlas project since the beginning.

They started by working with a team of dancers and a choreographer to design a suitable dance routine. Then came the challenging part - adjusting the moves so they could be performed on the robots, but still retain their resemblance to dancing. To reach a routine that was within Atlas' range of strength and speed, they used simulation which helped them iterate through movement concepts and constantly consulted the choreographer's advice. The dancers would present what they wanted the engineers to do, and the engineers would then make adjustments to find common ground.

The process got faster and faster as they built more and more tools - eventually able to get Atlas to execute a ballet move with just a day's work. While this accomplishment isn't necessarily ground-breaking - for the robots seem to be demonstrating only a variation of their old capabilities - it is certainly exciting. It seamlessly blends human innovation with artificial efficiency. More importantly, Saunders feels skills like balance and perception, developed through dance, will be useful when commercializing the robots.

Although such a development remains a bit creepy, at least it ensures you won't have to convince your partner to take salsa lessons with you - you'll always have an ever-indulgent, exceptionally agile, metal friend, for that!

## ANCING

Dance is one of the most ancient forms of human expression. It has always been an intrinsic part of our behavior - always flowing, always creative. So it is a little freaky, to say the least, that man has succeeded in attributing such a beautifully raw, human quality to artificial beings.





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