Napier Bridge

TACKLING

MISINFORMATION MISINFORMATION

In a world inundated with misinformation and disinformation, navigating the landscape of truth has become increasingly complex. In our hyperconnected world, discerning credible information from falsehoods poses a significant challenge. Does information lose its reliability simply because it contradicts our beliefs? How does generative Artificial Intelligence contribute to the dissemination of misleading ideas, and what implications does this have for our societal cohesion, political discourse, and collective well-being?

Some say truth is a matter of perspective. What comes to mind when you hear the word '**TruthCon**'? A convention dedicated to truth, perhaps? The antithesis of falsehoods? With the wordplay inherent in 'Con,' we leave it to your imagination.

Our goal with TruthCon exhibition is not to foretell a doomsday of misinformation, but rather to equip you with the tools to remain vigilant in the face of its impacts. Through well researched exhibits delving deeper, we aim to shed light on Misinformation and role of Al in perpetuating it, with a particular focus on emerging types such as deepfakes.

Join us as we explore the complexities of truth, confronting the narratives that shape our understanding of reality. Let 'TruthCon' be an experience for critical inquiry, where the boundaries of truth are explored further.

We would like to thank TEDx and Skoll Foundation for supporting TEDxNapier Bridge through Global Impact Network.

A BRIEF HISTORY OF MISINFORMATION

Throughout history, every leap in mass communication technology has been accompanied by an inevitable innovation in disseminating misinformation, disinformation, and propaganda.

Walk through a



of how misinformation has evolved right from the days of India's first newspaper to the recent Generative AI revolution.

PRINT MEDIA

The first newspaper was published in Germany almost 2 centuries after Johannes Gutenberg invented the printing press. Since then, printed newspapers have revolutionized mass communication. Even in today's digital age, newspapers are of prime importance with over **400 million readers** in India.



The **first printed** newspaper as well as the first documented case of **corporate propaganda**.

JANUARY 29, 1780



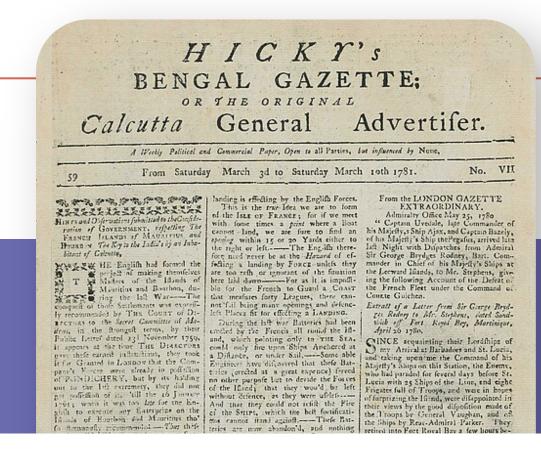
Launch of Hicky's **Bengal Gazette**, the first printed newspaper in Asia

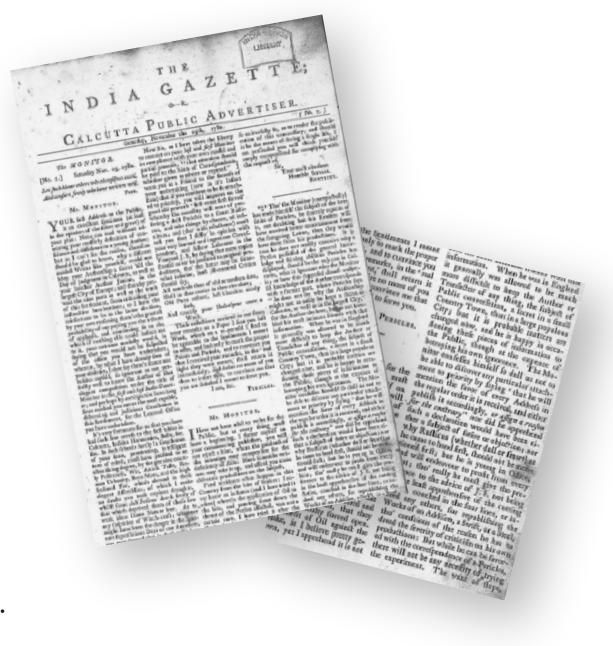
NOVEMBER 18, 1780

Launch of India Gazette, the second newspaper in India; funded and supported by the British East India Company

Hicky's **Bengal Gazette** was started in 1780 by James Augustus Hicky. Though having its flaws and shortcomings, it was instrumental in kick-starting the idea of the Press in India. It also discussed several important ideas such as freedom of the press and corruption within British East India Company servants.

This prompted two company servants Bernard Messink and Peter Reed specifically as a rival to the Bengal Gazette. This newspaper was filled with praise for the company and portrayed Indians as savages and inferior to the British. This was probably the first instance of state/ corporatesponsored propaganda on a printed medium in India.





Read more:

Unregulated Ads Feeding Into a Growing Infodemic: News report of a patient's heart blockage cleared using Ayurvedic therapy https://www.boomlive.in/decode/snake-oil-or-science-the-search-for-alternative-medicine-is-peaking-24713

AUDIO//IDEO

• MID 1900'S

THE AUDIO-VISUAL ERA

The introduction of the radio and television let people hear and see things, that were previously impossible. A whole new medium of information dissemination took the world by storm.

1936 LAUNCH OF ALL INDIA RADIO



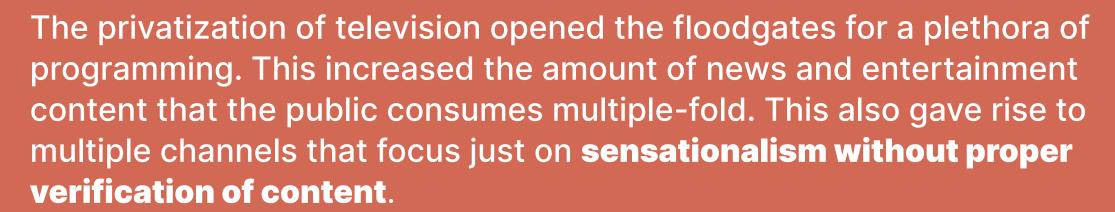


LAUNCH OF DOORDARSHAN

AIR and DD were the **first broadcast networks** in India to provide the public with radio and television services respectively. They are loved by many for airing some of the most nostalgic programs. But being state-owned, they have been critiqued for being a machine in spreading state propaganda. They were particularly misused by the government during the **Emergency of India** and the **Blue Star operation**.



1991 PRIVATISATION OF TELEVISION



Political party-owned channels also started popping up pushing programming that idolized party icons as a way to win over the vote bank.

Little after midnight on June 26, 1975, then **Prime Minister Smt. Indira Gandhi** announced on All India Radio:

"The President has declared a state of Emergency. There is no need to panic." This was followed by a period of cherry-picked announcements seldom portraying India's civil reality.

Read more:

AIR and Doordarshan Coverage of Punjab after Army Action https://www.academia.edu/43267913/AIR_and_Doordarshan_Coverage_of_Punjab_after_Army_Action

THE DOT-COM BUBBLE & THE ADVENT OF SOCIAL MEDIA

2000'S

THE DOT-COM BUBBLE

Although the Dot-com bubble caused a global economic crisis, it birthed some key technological advancements and made others mainstream. Most important among them was the Internet. As soon as the internet became mainstream, the barriers to mass communication became negligible. Although the internet has defined our generation, it has also been the single greatest tool of misinformation in history. This was further exacerbated by the improvement of content manipulation tools like Photoshop and social media platforms like Facebook.

2006

FACEBOOK & THE ERA
OF INDEPENDENT
CREATORS

WHATSAPP AND A
SUPER-CONNECTED
PUBLIC

The Free Bird 🤎

The social media revolution came about with the **launch of Facebook in 2006**. With the newfound strength of independent content creators, people were able to share on-ground realities that traditional journalism had failed to pick up. But on the flip side, everyone could create and share content with zero barriers and verification. From unintentional sharing of misinformation to ill actors creating misleading content; dissemination of misinformation increased multiplefold from that of traditional media. Beyond Facebook, India's favourite messaging service i.e. WhatsApp has created echo chambers where misinformation gets amplified and shared over and over again.

INDIA'S CHANDRAYAAN-3 LUNAR MISSION:

Fake news takes flight alongside spacecraft

Chandrayaan-3's soft landing on the Moon's South pole was one of ISRO's greatest achievements and made headlines worldwide. But sometimes, pride leads to fake news going super viral. The Indian Emblem imprints on the moon were one such instance.



THE ERA OF SYNTHETIC MEDIA

Artificial Intelligence as a discipline has been around since the 1950s, but it was only in **2014** that a program (Eugene Goostman) was able to convincingly pass the Turing Test, thereby mimicking human behaviour. This opened the floodgates for synthetic media i.e. **computer generated content** thereby creating an entirely new dimension of misinformation.

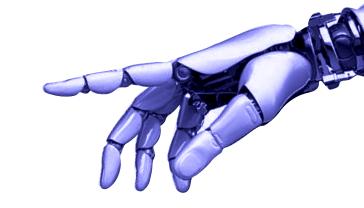


GENERATIVE AI BLURS THE LINE BETWEEN FAKE AND REALITY

In 2020, Generative AI came into the picture. This bleeding edge of technology completely blurred the line between reality and imagination. Generative Al (different from traditional discriminative AI) was revolutionary in the sense it could create new life-like content from training data. With this came the development of deep fakes, completely computer-generated synthetic media (audio or video) of real people. Ever since, deep fakes have been used in a variety of notorious ways. It was originally used to create malicious pornographic content of celebrities but quickly morphed into being used for all sorts of ill intentions from financial scams to being used by and against political parties to manipulate voters.



From celebrities like Amitabh
Bhachchan and Sachin Tendulkar to
political leaders like M. Karunanidhi,
deep fakes have impersonated almost
everyone. Some of these are novel and
harmless renditions while others are
dangerous with malicious intent.



Read more:

PSYCHOLOGY BEHIND MISINFORMATION

Misinformation dissemination is not monolithic but rather a dynamic discipline that's constantly improved by bad actors and amplified by social networks. This exhibit explores how certain bad actors exploit our cognitive shortcomings to enable misinformation to run rampant in the echo chambers created by social media.

HOW OUR BRAIN REACTS TO MISINFORMATION

THE DORSOME-DIAL PREFRONTAL CORTEX (DMPFC)

is a region of the frontal cortex of the hemispheres, which activates when we need to control our behavior. It helps us stop impulsive reactions that don't match how we're usually expected to act in society. The activity of this structure is high when we try to rationalize information that does not agree with our perception of reality.

THE VENTRAL TEGMENTAL AREA (VTA)

is a region in the brainstem where many neurons that release the neurotransmitter dopamine are located. The pleasant feelings accompanying dopamine release encourage the repetition of behaviors that activate this zone. New and unexpected information triggers the activation of this area. The brain prioritizes processing novelty, so we give more attention to new messages, especially emotionally charged ones.

THE AMYGDALA

Is a group of nuclei in the temporal lobe of the cortex, activates in the presence of potentially threatening information or the emergence of negative emotions. When news uses imagery or language associated with danger, the amygdala stimulates our thinking to a fast, intuitive mode. In such a state, we readily believe in fakes. The amygdala is also active when we defend statements we sincerely believe in, despite solid counterarguments.

Information credits:



Kunsht

THE ANTERIOR CINGULATE CORTEX

monitors conflicting situations. It becomes active when an internal conflict arises. It chooses between two alternatives: we either possibly make mistakes, or stay in a position of uncertainty. When you "feel" something is wrong with this news, better check the news: the anterior cingulate cortex is trying to get through to you, a feeling of ten called intuition.

THE HIPPOCAMPUS

is a crucial structure in the brain's temporal lobe, responsible for forming long-term memory. The process of strengthening the memory trace occurs during sleep, and priority is given to those events from the previous day that were emotionally charged, vivid, and unexpected. Therefore, hype news is more likely to be remembered than ordinary news.

COGNITIVE

Cognitive load refers to the total mental effort used by working memory. As cognitive load increases:

- The likelihood of making an error in task execution rises;
- People think more intuitively and stereotypically, which hampers rational thought.

If someone presents information to you disorganizedly, includes many unfamiliar terms, long complex sentences, or uses small print, these actions will increase cognitive load and hinder the recognition of manipulation.

THE PREFRONTAL CORTEX

Is the human center of rational thinking — activates during deliberation, creating new concepts when there is enough time and the situation is perceived as safe. Quickly scrolling through news feed does not promote thorough analysis involving the prefrontal cortex. Intense activity in the amygdala (as in a situation of danger or chronic stress) inhibits the processing of information by the prefrontal cortex.

THE INSULA

is a deep structure in the brain's cortex, which activates during experiences of pain, viewing repulsive scenes, or violence. A negative emotional response accompanies the excitation of the insula. Therefore we tend to remember news with such content better. Also, when someone tries to persuade you that your judgments are wrong, this activates the insula, triggering fear due to the potential change in your beliefs

THE ORBITOFRONTAL CORTEX

is the area of cognitive flexibility. It becomes active when previously learned behavioral patterns must be abandoned in favor of new ones. The more activity in this area, the more likely a person is to change their mind after encountering counterarguments.

View full infographic:

10 CHARACTERS OF DISINFORMATION

(Disinformation - false information which is intended to mislead)



1. THE HATE GENERATOR



Someone who spreads hate against a particular group via fabricated falsehood. Women, the LGBTQIA+ community, migrant labourers, dalits, and other caste and religious minorities are most affected by hate speech.



2. CONSPIRACISTS

Someone who creates fear mongering perspectives on historical and world events. Although their theories are not backed by data or evidence, they are alarmist and sensational aimed at creating public chaos. They often accuse non-believers as blind stooges.





3. THE SOCIAL MEDIA JOURNALIST

This is the Youtuber who reports on world events in a simple and easy-to-understand manner. Although well-intentioned, their oversimplification often leads to a misinterpretation of the original idea. Certain problems are complicated and nuanced, and hence simplification causes decontextualization.



4. THE SCAMMER

The most straightforward malicious actor on the internet who's out to steal your money or data. They often employ phishing, smishing, or vishing tactics to impersonate trusted brands or individuals. In recent times, this has been supercharged by audio deepfakes.





5. THE POLITICIAN

All politicians share content that suits their narrative. But some are infamous for propagating falsehoods knowingly to reshape public opinion. They bank on people's political bias and the trust they've built over the years to disseminate lies.





6. THE WHATSAPP UNCLE/AUNT

This is the well-intentioned family member who shares everything in the family WhatsApp group, from health tips to global politics. But alas, their intentions are in vain, as a simple Google search would reveal their forwards to be completely false.

7. THE HYPERBOLIST

Someone who exaggerates and distorts narratives in an attempt to enhance their personality. They often unintentionally end up spreading misinformation in their quest to land a hyperbole.





8. THE SATIRIST

Satirical criticism is important for a well-functioning society as it puts forward tough questions and promotes healthy public discourse. But sometimes, when satire is not made explicit, it is misinterpreted as fact.

9. THE CELEBRITY

Many celebrities often share unverified and fake content, either unknowingly or with ill intent. Once called out, they often blame their social media managers for having posted without their knowledge.





10. THE HUMAN BOT

Brands pay people with burner social media accounts for favourable reviews and comments in a process called astroturfing. Apart from this being a questionable marketing tactic, bots are also used by ill actors to provide authenticity to certain social media posts.



Additional resource:

SEE BEYOND THE LI(N)ES

Read through translucent red glasses in order to see the "truth"

Did you know? Research indicates that an individual encounters around 15 instances of fake information everyday.

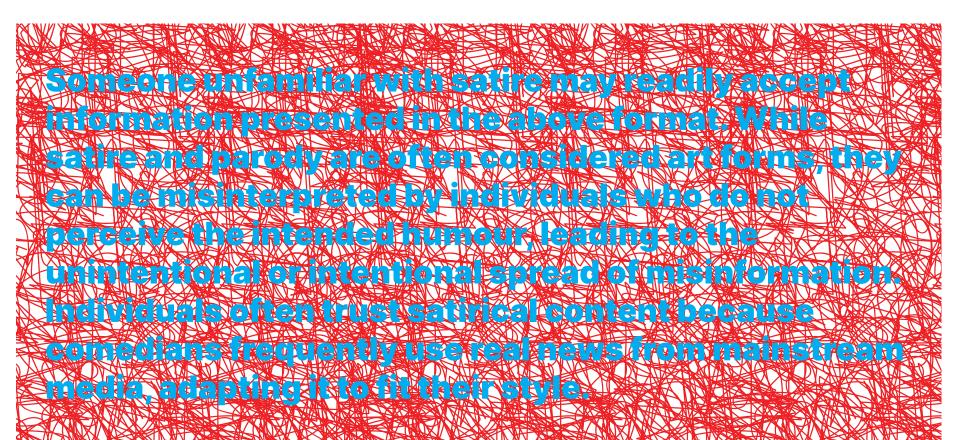
CONSPIRACY THEORIES

It is an attempt to explain harmful or tragic events as the result of the actions of a small powerful group. Such explanations reject the accepted narrative surrounding those events; indeed, the official version may be seen as further proof of the conspiracy. These claims are not based on scientific evidence or solid data.

The covid-19 virus was deliberately engineered by 'The Secret Society'. Covid-19 vaccinations are part of a larger scheme to control or harm the population.

SATIRE

This employs humour or exaggeration to critique individuals, organisations, or policies. Though not inherently harmful, it may occasionally mislead its audience.





FALSE CONTEXT

Never forget. Never Forgive.

Never forget. Never Forgive.

On 5 August 2020, when the foundation stone of Shri Ram Janmabhoomi was being laid, Congress MPs went to Parliament wearing black clothes

Jai Shri Ram

When authentic content is accompanied by misleading context, such as resharing a picture with a new narrative, it constitutes a potent form of information disorder. The genuine content can't be denied, but when it's framed differently, it becomes dangerous, supporting a false narrative.

Source: Ghost Archive | Facebook Screenshot

IMPOSTER CONTENT

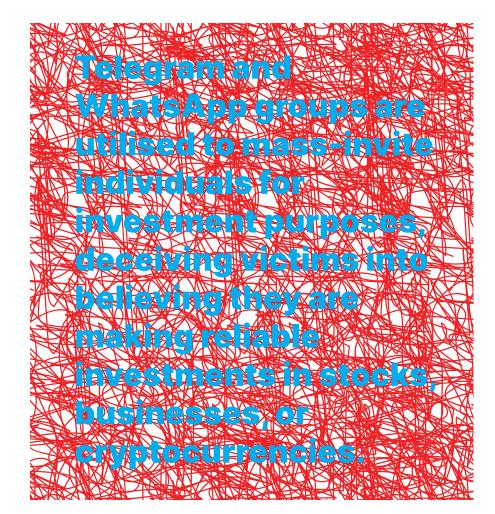
False or misleading content is created using a well-known name, brand, or logo to create a false sense of legitimacy, often leading individuals to fall prey to manipulation when distracted or rushed inadvertently. One infamous implementation of this is to create fake websites with domains that mimic established and well-known websites, to trick people into sharing personal or financial data.



MANIPULATIVE CONTENT

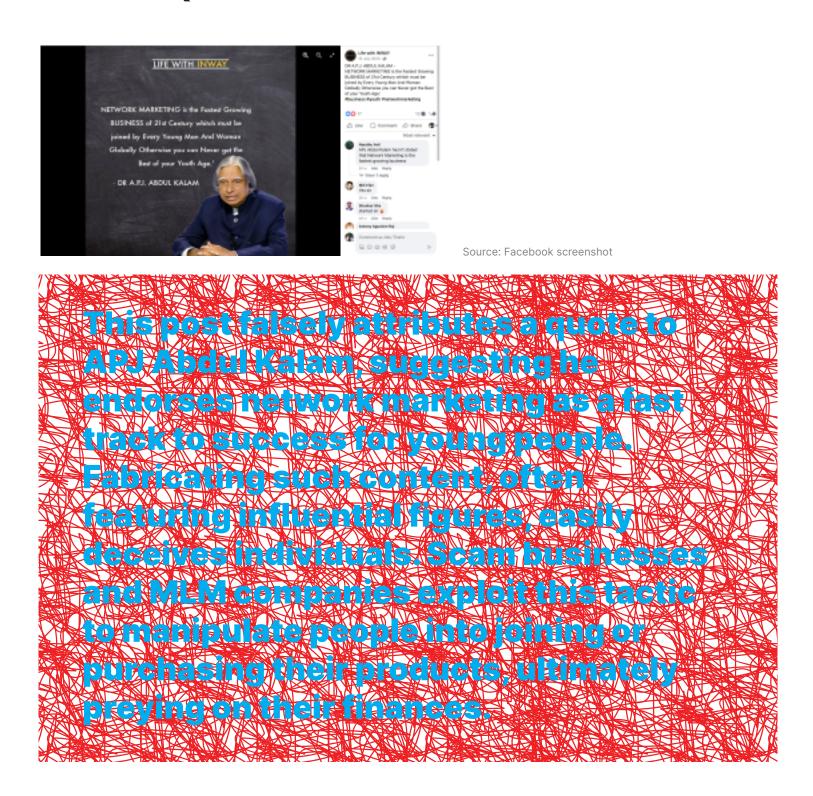
CLICKBAITS

Trading made easier, click here to join our telegram group and get free stock recommendations and get rich overnight!



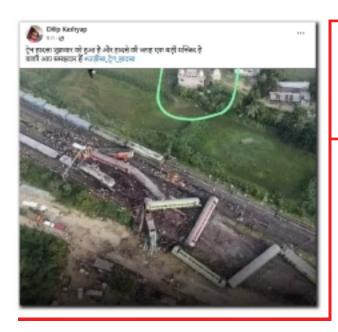
The content is created to manipulate others for personal gain, often through unjust or deceitful methods.

FAKING QUOTES



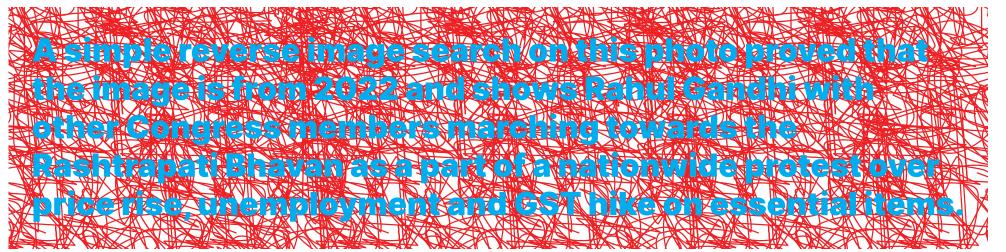
FABRICATED CONTENT

This type of content is entirely false and is created to deceive and cause harm. It mimics reality but is entirely made up, making it challenging to identify. It can take various forms like videos, articles, social media posts, designed solely to trick the audience.



Source: Ghost Archive

The Odisha train accident happened on Friday and there is a big mosque present at the accident spot. Rest, you are wise.



This piece is inspired by the See Beyond the Headlines poster from the Fakeless Exhibition on Media Literacy. Ref: https://fakeless.org/wp-content/uploads/2023/08/Types-of-manipulations_RGB_8_enghish.pdf

Additional resources:

WHAT IS A DEEPFAKE?

An image or recording that has been convincingly altered and manipulated to misrepresent someone as doing or saying something that was not actually done or said. Deepfake can be a photograph or audio or video.

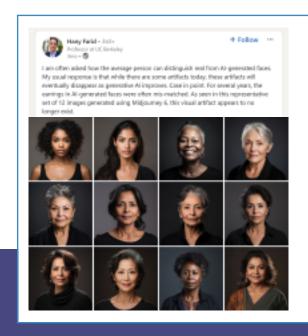
Source: merriam-webster

The first known use of deepfake was in



While editing tools, like Photoshop, have been in use for decades, the first-ever use of deepfake technology can reportedly be traced back to a Reddit contributor who in 2017 had used a publicly available Al-driven software to create pornographic content by imposing the faces of celebrities on to the bodies of ordinary people.

Source: The Hindu https://bit.ly/43NKX1N



Hany Farid, a professor at the University of California, Berkeley, specializes in digital forensics and Al-generated misinformation. A few months ago, he shared an insight on LinkedIn about how realistic Al-generated images are becoming and why, in the future, it will be very difficult for an average person to distinguish between what is real and Al-generated.

DEEPFAKE: TARGETING WOMEN

Deepfake pornography makes up 98% of all deepfake videos online.

The majority of deepfake videos online are related to pornography, while other nonpornographic types of deepfakes have also become more popular.



to create a 60-second deepfake pornographic video of anyone using just one clear face image for free.



of the individuals targeted in deepfake pornography are

Source: https://www.homesecurityheroes.com/state-of-deepfakes/#key-findings



While many are aware of the deepfake video of Actress Rashmika Mandanna in November 2023, it was also during a that month that a video purportedly showing Kajol Devgan changing into an outfit was caught on camera. This video is a deepfake created by misusing the actor's face.

Source

https://www.boomlive.in/fact-check/viral-video-bollywood-actress-kajol-devgan-changing-dresson-camera-social-media-23586

WHAT TO DO

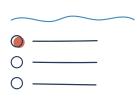
in case you find a deepfake of yourself online?

Having nudes online is scary, but there is hope to get it taken down.



is a free service that can help you remove or stop the online sharing of nude, partially nude, or sexually explicit images or videos taken of you when you were under 18 years old.

Visit **TakeItDown.NCMEC.org** and click on "Get Started"







Answer a few simple questions.

Select the image or video on your device that you're concerned about. Take It Down will assign a unique digital fingerprint called a hash value, to the image or video.

Visit: https://takeitdown.ncmec.org/resources-and-support/

The hash will be shared with participating online platforms that can use it to detect copies of these images or videos on their services and take action to remove the content or limit the spread. This all happens without the image or video ever leaving your device or anyone viewing it, and you don't have to share any personal information.



Stop Non-Consentual Intimate Image Abuse (18+) - www.stopNCII.org is a free tool designed to support victims of Non- Consensual Intimate Image (NCII) abuse.

How it works - www.stopncii.org/how-it-works/

Alecto Al

An Online Identity Infrastructure to empower you in safeguarding your online image and privacy, using cutting-edge facial recognition technology.



Responsible Netism (India)

Reporting cases on this platform will help you officially report online distress/ harassment, and take appropriate action against the cyber crime you are facing.



Alecto Al

An Online Identity Infrastructure to empower you in safeguarding your online image and privacy, using cutting-edge facial recognition technology.



WHAT TO DO

in case you find a deepfake of yourself online?



WWW.REPORTHARMFULCONTENT.COM Q

Report threats, impersonation, bullying & harassment, self-harm or suicide, online abuse, violent content, unwanted sexual advances or pornographic content from multiple social platforms.



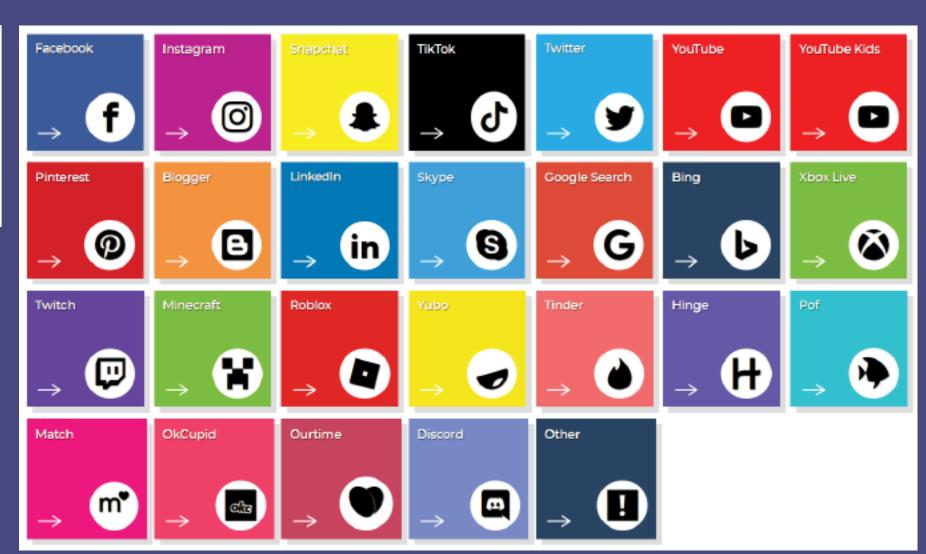




Image-Based Sexual Abuse

Yes. India criminalizes the non-consensual distribution of intimate images. Scan to know more.



TAKE ACTION

On **www.change.org**, people and organisations around the world start petitions for free, and work with decision makers to create change at the local, national and global level.

Source: www.myimagemychoice.org/support/

A Message from Ella | Without Consent - https://youtu.be/F4WZ k0vUDM?si=ixT4xBNzd23qilxm

We are happy to share pictures - whether of holidays, celebrations and private moments - directly with each other. That's beautiful and connects us. However, once online, this personal data is available worldwide and indefinitely. And that can have unforeseen consequences. Which one is described using the example of Ella.

Another Body - https://vimeo.com/ondemand/anotherbody

ANOTHER BODY follows a college student's search for answers and justice after she discovers deepfake pornography of herself circulating online. | Available on Apple TV and Amazon in the USA.

IMPACT OF MISINFORMATION & AI

The Turing Test, created by Alan Turing in 1950, is a simple test that gauges if a machine can exhibit behaviour indistinguishable from that of a machine. Although it took more than half a century to develop a machine that could convincingly pass the Turing Test, the evolution of Al post passing the Turing Test has been mind-boggling. Now, machines can conjure up fake realities that are indistinguishable to the human eye. Through this intangible media, Al poses a very tangible threat to people's lives.

USING FAMOUS PERSONALITIES

Fraudulent advertisers utilize **Al voice cloning** technology to mimic the voices of well-known Indian personalities. These clone voice personas promote various things like schemes promising quick wealth, betting applications, and trading platforms. **Victims are generally asked to download an app or join a Telegram/WhatsApp group.**





- ▲ Screenshot from AI deepfake of Mr. Ratan Tata promoting a ponzi scheme | Image Credit: BoomLive
- Screenshot from AI deepfake of Actor Akshay Kumar fraudulent trading app | Image Credit: BoomLive

Read more here:

https://www.boomlive.in/decode/fraud-ads-ai-voice-clones -deep-fake-facebook-india-apps-laila-rao-shahrukh-khan-r avish-kumar-deep-fake-akshay-kumar-23815?infinitescroll =1

https://www.boomlive.in/fact-check/ratan-tata-deepfake-sona-agarwal-laila-rao-fact-check-23768



IMPERSONATION OF YOUR CHILD OR RELATIVE



KIDNAPPING:

Scammers will call pretending to be holding a child or relative hostage and demand ransom money. They may use manipulated voice clips to simulate distress or urgency, creating a sense of panic and pressuring victims into complying with their demands.

Read about a real case: https://timesofindia.indiatimes.com/india/fooled-by-your-own-kid-chilling-rise-of-ai-voice-cloning-scams/articleshow/108569446.cms

CREATING EMERGENCY:

Fraudsters impersonate a child or relative in distress, claiming to be in an accident, arrested, or in need of urgent financial assistance due to a medical emergency. They may use emotional manipulation to convince victims to send money or disclose sensitive information.



Read about a real case: https://www.moneycontrol.com/news/trends/woman-loses-rs-1-4-lakh-in-ai-voice-scam-he-sounded-like-my-nephew-11760861.html

Some scams specifically targets elderly individuals, where scammers pretend to be a grandchild in trouble, such as being arrested or hospitalized, and urgently request money to resolve the situation. They may use voice manipulation or pre-recorded messages to make their claims more convincing.





HOW TO REPORT AS A VIC

The only way to report Al related financial crime in India is through CyberCrime.



https://cybercrime.gov.in/Webform/Index.aspx or call



www.aivoicedetector.com

Individuals can analyze voice messages and calls they receive using our extension or by uploading the audio file to determine whether the audio comes from an Al-generated voice or a human voice.

If you come across fraudulent ads on social media, report them.



HOW TO SAFEGUARD YOURSELF



THINK BEFORE YOU CLICK & SHARE

Who is in your social media network? Do you really know and trust your connections? Be thoughtful about what you are sharing on Facebook, YouTube, Instagram, and TikTok. Consider limiting your posts to just friends and family through the **privacy settings**. The wider your connections, the more risk you may be opening yourself up to when sharing content about yourself.

AYOUD FALLING FOR THE AI VOICE SCAM DIRECTLY



Set a 'codeword' with kids, family members, or trusted close friends that only they could know. Make a plan to always ask for it if they call, text, or email to ask for help, particularly if they're older or more vulnerable.

Always question the source - If it's a call, text, or email from an unknown sender, stop, pause, and think. Asking directed questions such as "Can you confirm my son's name?" or, "When is your father's birthday?" can throw off a scammer.





Don't let your emotions take over.

Cybercriminals are counting on your emotional connection to the person they're impersonating to spur you into action. Take a step back before responding. Does that really sound like them? Is this something they'd ask of you? Hang up and call the person directly or try to verify the information before responding.

Consider whether to answer unexpected calls from unknown phone numbers.

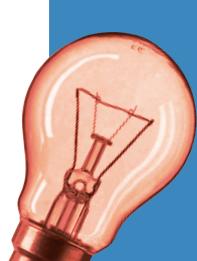
It is generally good advice not to answer calls from strangers. If they leave a message, this gives you time to reflect and contact loved ones independently to confirm their safety.



Source:

www.mcafee.com/content/dam/consumer/en-us/resources/cybersecurity/artificial-intelligence/rpbeware-the-artificial-impostor-report.pdf

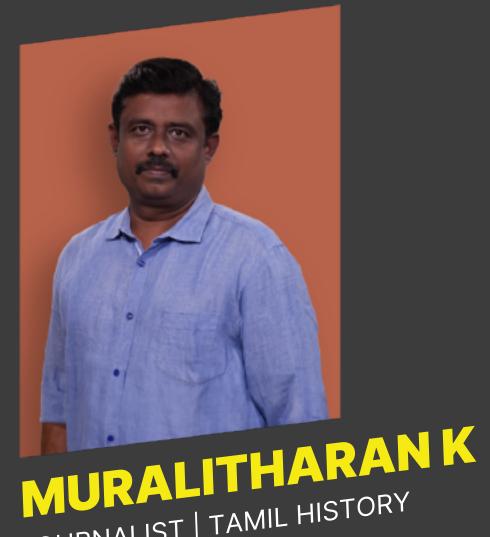
www.boomlive.in/explainers/ai-voice-scam-voice -cloning-mcafee-report-21851







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DR. SINDHUJA SANKARAN SOCIAL PSYCHOLOGIST



URU PAANAR REVIVALIST MUSIC COLLECTIVE

') Q SUNDAY **April** 2024

Napier Bridge

www.tedxnapierbridge.com