

The Negative Impact of the Manipulated digital image on Societies

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Abstract

With the emergence of picture editing software and social media platforms that enable the sharing of photographs, manipulated digital images have become more prevalent in the modern world. While digital image alteration can be used to make photos appear cleaner or brighter or for other benign objectives, it can also be used to depict persons, events, or locations in ways that are incorrect or deceptive.

Digitally altered photos have a variety of negative impacts on society. First, people may start to doubt the veracity of the visuals they encounter online, which can weaken their confidence in the media and information in general. This can have serious ramifications, especially in contexts where information accuracy is vital, including news reporting and political dialogue.

Additionally, manipulated pictures may be harmful to individuals, particularly young people, by fostering a culture of obsession with appearance and inflated ideals of beauty. Furthermore, it can encourage a culture of mistrust and cynicism, which might make it challenging for people and communities to cooperate and work toward shared objectives.

The authors' aim in this qualitative study is to investigate the effect of manipulated images and how are they used in commercial content to confuse and influence individuals. The study's objectives were to conceptually evaluate the role of photoshopped images in advertising and discuss the key issues surrounding their use in advertisements. It also explored how image alteration in commercials serves to strengthen the egos of those who use it personally and improve already stunning photographs.

Introduction:

The 19th century had seen the birth of some of the earliest photos, which were captured on glass and tin plates. Early examples of the practice date back to the French photographer Joseph Nicéphore Niépce, who invented heliography and produced the first photograph in 1826 using a photoengraved printing plate.

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In the 20th century, digital photo editing has been developed. Historical photographs have employed a variety of tricks, including the face swapping of John Calhoun and Abraham Lincoln and the erasing of people or objects, as shown in the image of Willy Brandt and the vanished beer bottles. ⁽¹⁾

Negatives can be edited in the darkroom by combining images or negatives, or they can be altered while the negatives are still in the camera using double-exposure techniques. Some darkroom manipulations featured hand coloring for aesthetic goals or to emulate a fine art painting. Other techniques included bleaching to elegantly lighten or completely wash out areas of the photograph.

Over time, these editing methods for photographic films have changed, and now, with the advent of digital photography, users can alter their images using software like Photoshop which was developed by Thomas and John Knoll in the 1990s.

Photoshop has since evolved into a verb (i.e., Photoshopped), which stands meaning digitally retouched, altered, enhanced, or manipulated. Initially, the application was just a straightforward way to show grayscale graphics on monochrome monitors. The brothers both took a break from their jobs and studies to develop a complete image editing tool after receiving some encouragement from John. ⁽²⁾

Problem Statement:

The impact of manipulated images in society has become a growing concern as technology advances, making it easier for individuals and organizations to alter images in ways that are difficult to detect. This has led to the spread of false information, the creation of unrealistic beauty standards, and the manipulation of political discourse, among other issues.

Manipulated images can also contribute to the development of unrealistic beauty standards, particularly among young people. Images that have been heavily edited to create a particular look can make individuals feel insecure about their appearance, leading to a negative self-image and potentially even the development of eating disorders.

Four research questions were formulated as follows to answer the problem at hand:

- 1- Why do they use photoshopped images?
- 2- To what extent do manipulated images affect societies?
- 3- How does photo manipulation distort reality and affect people's mental health?
- 4- To what extent do manipulate images respect professional ethics?

Purpose of the study:

This paper will examine how altered pictures may have negative effects on societies.

The Importance of the Study:

Since there hasn't been a lot of research in this field, the study helps to better understand how manipulated images may have an impact on societies on many different levels.

- Keywords: Adobe Photoshop, Digital Image, Photo Manipulation, Advertising, Products.

- **Adobe Photoshop:**

Adobe Photoshop is the most well-known photo-editing application that was created by the American brothers Thomas and John Knoll in 1987. The software is widely used by Professional designers, photographers, filmmakers, artists, amateurs, and website developers are just a few of the many users of Adobe Photoshop. The program is a component of the Adobe Creative Cloud and is offered in standalone and integrated editions.

Digital Image:

A digital image is a representation of a real image that a digital computer may store and manipulate as a collection of numbers. The image is broken into tiny sections known as pixels so that it may be converted into numbers (Picture elements). The imaging equipment stores a number, or a limited group of integers, that identify a pixel's characteristics, such as its brightness (the amount of light it emits), or color. The rows and columns of the numbers' arrangement represent the vertical and horizontal locations of the pixels in the image.

- **Photo Manipulation:**

Photo manipulation means altering or editing an image to get the effects that one desires. While some picture modifications are regarded as expert artwork, others are looked upon as unethical activities, especially when done to mislead the public.

- **Advertisement:**

Often referred to as an ad or an advert, is typically seen as a kind of public relations that serves to publicize a product, service, brand, or event. Some people may view the phrase as going much farther than that, encompassing any type of sponsored advertising intended to enlighten or persuade.

- **Products:**

A product is anything that may be provided to a market to satiate a customer's need or desire. It can be an item, a system, a service, or a Physical product that is made accessible for consumer usage in response to consumer demand Products also are sometimes referred to as merchandise in the retail sector, and they are purchased as raw materials and then sold as finished things in the manufacturing sector.

Methodology:

This qualitative paper is based on an in-depth analysis of the content of selected images in terms of form, including the use of color, lighting, and retouching, as well as analyzing the content and the message to extract useful information.

Literature review:

Images that have been altered have a negative effect on society. It can affect how individuals see the world, causing them to have erroneous expectations and self-images. Manipulated photographs may also transmit erroneous information and even help fake news gain traction. In the entertainment and commercial sectors, where the idealization of beauty and perfection is frequently stressed, the use of altered photographs is particularly common.

According to a study conducted by L. F. Hodges and S. J. Anastasi. **(2020)**, "The Effects of Manipulated Images on Memory"⁽³⁾ which examines the effects of manipulated images on memory. The study found that exposure to manipulated images can lead to false memories and a decreased ability to accurately recall events. This has important implications for legal cases, as eyewitness testimony can be impacted by exposure to manipulated images. The study conducted by J. W. Rauthmann and M. J. Sherman **(2019)**, "The Psychological Impact of

Digital Image Manipulation" ⁽⁴⁾ found that exposure to manipulated images can have a negative impact on individuals' self-esteem and body image. It can also lead to an increased distrust of others and a decreased sense of self-efficacy.

And According to another research by J. A. W. Moran and K. A. Calvert (2017), "Manipulated Images and Social Media: A Qualitative Study of Young Adults' Perceptions and Responses" ⁽⁵⁾ which examines how young people perceive and respond to manipulative pictures on social media. Based on the research, young adults are frequently dubious about the veracity of photos and are aware of how common it is for images to be altered before being posted on social media.

Nevertheless, viewing these photos might nonetheless have a negative impact, leaving one feeling inadequate and self-conscious. M. Zawadzki and J. P. Forgas (2016) conducted another study titled "The Impact of Manipulated Images on Perceived Realism in the Digital Age"⁽⁶⁾ that looks at how altered images affect people's perceptions of reality. The study discovered that people's impression of the authenticity of their surroundings decreases after being exposed to altered photographs. This decline in perceived realism can have

several unfavorable effects, such as decreasing confidence in news sources and reducing the ability to tell fact from fiction.

Furthermore, the 2016 research "The Impact of Image Manipulation on Political Persuasion" by Delli Carpini and B. Williams⁽⁷⁾ focuses on the impact of image alteration on political persuasion. According to the study, people's political opinions and beliefs may be significantly influenced by manipulative images. Particularly, people were more likely to back a political candidate or issue if they were exposed to images that were positive and manipulated to portray the candidate or issue in a favorable light.

The use of manipulated images:

Image manipulation is a method for altering a photograph to make it more aesthetically attractive or to provide a viewpoint that is completely different from the one it originally had is called digital photo manipulation. Most of the time, people can't really remember what it was like before. This process is

generally utilized for corporate goals and in social media. Everyone likes viewing pictures of products that we may eventually wish to acquire or buy. The more appropriate an image is, the stronger and louder its message will be.

In today's business, Digital image editing has indeed become a common practice for Media outlets such as News Papers, Magazines, websites, etc. They must present the merchandise in their online stores in an orderly, spotless manner. Distracting backgrounds, items, or colors in product images prevents customers from getting a clear impression of the merchandise. Incorrect composition, underexposure, and overexposure all result in the same situation. A visitor usually has a bad impression of these kinds of images. Frequently, those items are overlooked by consumers. Several digital photo editing or image alteration techniques can, however, be used to correct these flaws, and almost every field is affected by the rise of picture alteration, including security, law enforcement, scientific publication, politics, journalism, and advertising⁽⁸⁾

So, what are the negative effects of Photoshopped digital images on Society?

The impact of manipulated images in society has become a growing concern as technology advances, making it easier for individuals and organizations to alter images in ways that are difficult to detect. This has led to the spread of false information, the creation of unrealistic beauty standards, and the manipulation of political discourse, among other issues.

Manipulated images can cause significant harm, particularly when they are used to spread false information. For example, images that have been doctored to show events that did not occur, or to misrepresent the actions of individuals or groups, can be used to manipulate public opinion and cause real-world harm.

Manipulated images can also contribute to the development of unrealistic beauty standards, particularly among young people. Images that have been heavily edited to create a particular look can make individuals feel insecure about their appearance, leading to a negative self-image and potentially even the development of eating disorders.

A false image may be produced by almost anybody nowadays, and the number of visually pleasing photo fakes is increasing at an incredible rate. Although the frequency of picture manipulation is difficult to gauge, a recent global study of photojournalists found that 76% of them see it as a serious issue, 51% always or frequently edit in-camera or RAW (i.e., unedited) images, and 25% blame the availability of powerful, reasonably priced editing tools in the digital age.

Although Photoshop has created a positive by allowing artists and photographers to get more creative with images. The negative effects of Photoshop vary and change between different genres of media and they all can be equally detrimental. Let's break down Photoshop into its three primary areas of contention as it's hard to single out one overriding drawback⁽⁹⁾

1- Health Impact:

While Photoshop can produce stunning photographs, it can also produce visuals that are surreal and out of reach. Many people look to celebrities to reflect the "ideal physique," glamour photography is one field that has been heavily involved in photo editing. Changes to a model's appearance can be made by manipulating a photograph, including changes to the model's body type, skin tone, and hair color.

The elimination of flaws is a common step in skin retouching, and there are tools in well-known photo editing applications that are designed just for this.

Based on this, it starts to become difficult to distinguish between what is genuine and what isn't since it enhances reality. Eventually, this leads to individuals comparing their own lives to an ideal that doesn't exist, which can be detrimental to one's mental or emotional well-being.

Because society today places too much emphasis on beauty standards and the word "beautiful" has different meanings to different people, advertising companies, took advantage of applications such as Photoshop to manipulate photos to create an unrealistic expectation of what people should look like to be pretty, and seeing these beautiful celebrities in magazines makes people want to do whatever is possible to look that way.

In September 2009, for example, one of the most popular singers in the United States, Kelly Clarkson, was digitally slimmed down and featured on the cover of *Self* magazine.



Such absurd photographs indeed have the potential to cause eating disorders like anorexia, low self-esteem, and a negative body image, all of which are major problems that can take place, especially among adolescents and young people who put too much focus on how they are perceived by others in terms of body weight, body shape⁽¹⁰⁾

And according to a UK survey, 15% of respondents aged 18 to 24 in the year 2000 agreed that the models used in the media correctly represented how the actual body appears. Over 650 survey respondents, according to the same study, reported feeling "unconfident or extremely unconfident with their body."

In this regard, Jill E. Daino, a licensed clinical social worker, and primary therapist tells that "It's frequently portrayed as something that is easily achievable without acknowledging the hours and hours of effort at nutrition, exercise, and retouching that most women cannot access,"

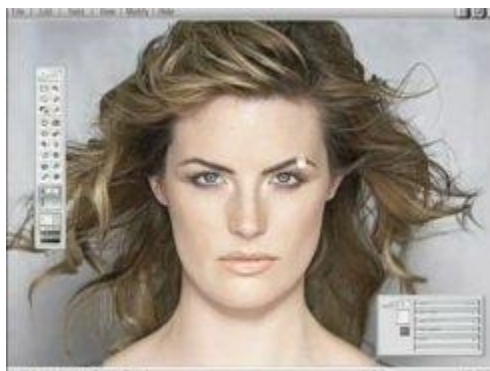


W magazine posted in its cover page Faith Hill an American singer and actress, which appeared so appealing and attractive photo of the singer. appear younger. When we look at the original photo in the left side, it is very much obvious that the freckles on the face, and in the hand. The exposure and color saturation as well seemed to be edited and the difference is quite clear. Such photo indeed is most of the time is hard for people to achieve. Getting a clear skin indeed is associated with healthy food, nutrition, etc.

This can lead to people feeling disappointed and misled when they purchase the product, and it doesn't live up to their expectations. This kind of beauty activism is noble. It's frustrating, misleads people, and can lead to people feeling disappointed and misled when they purchase the product and it doesn't live up to their expectations, especially women who admitted that they don't feel pleased when the new foundation they bought doesn't make us look like celebrities that appear on the magazine's cover pages.

And that is what has been affirmed by Daino, a licensed clinical social worker, and primary therapist, when he mentioned that “Retouched photographs, can result in lowered self-esteem, anxiety, and, in some circumstances, depression. As a result, people may act in ways that they believe would help them achieve the ultra-thin, spotless bodies they see in media and on social media. She continues, “increased exercise, dietary changes, and cosmetic changes through makeup or other processes” are some of these habits.⁽¹¹⁾

In 2006, for example, Unilever, the London-based multinational British consumer products company, introduced the Dove Campaign for Real Beauty with the intention of showcasing unadulterated beauty. The commercial (click picture) depicts how digital computer modification and makeup were used to change a model.



This can lead to people feeling disappointed and misled when they purchase the product, and it doesn't live up to their expectations.

"Unreasonable or impossible standards of beauty created by photo retouching can result in individual feelings of being flawed, not measuring up, or not being good enough," Dr. Rachel O'Neill, a licensed professional clinical counselor and primary therapist on Talkspace, tells SheKnows. "Over time, it's possible for an individual to internalize these feelings, which may result in low self-esteem, reduced self-confidence, and feelings of sadness and depression"⁽¹²⁾

Christie Tcharkhoutian, a licensed marriage, and family therapist in Los Angeles tells SheKnows that the beauty business thrives when people are dissatisfied with how they look — and this dissatisfaction can be detrimental to women as they strive to "shatter the glass ceiling of equal opportunity and pay in the workplace."

These findings have led some health authorities, including licensed psychologist Dr. Sarah Ravin, to speculate that the usage of Photoshop has increased body dissatisfaction in both women and men. “I think that while Photoshop is a wonderful tool, it has been overused,” Ravin said. “Photoshop has made society believe that it is normal to be flawless and to have perfect proportions, and that’s not true.” Photoshop has

taken apart people, and instead of focusing on the body, it looks toward certain body parts that might be deemed flawless, Ravin added.⁽¹³⁾

In Advertising:

Advertising companies often use photoshopped images in their ads because they believe it will make their products or services more appealing to potential customers. By altering or enhancing the appearance of models, products, or settings in an image, advertisers can create an idealized and often unrealistic representation of their brand.

Photoshopping allows advertisers to create images that are aesthetically pleasing, highly stylized, and attention-grabbing. It allows them to highlight the most attractive features of their products or models, and to remove any perceived imperfections that might detract from their message.

While the use of photoshopped images in advertising is controversial, it remains a common practice in the industry. Some argue that it creates unrealistic beauty standards and promotes an unhealthy and unattainable body image, while others argue that it is a necessary tool for creating effective marketing campaigns. Ultimately, the decision to use photoshopped images in advertising is up to individual companies and their marketing teams.

Like many companies, McDonald's has used manipulated images in its advertising to make its products look more appealing. For example, they may use retouching techniques to enhance the colors or textures of the food in their promotional images.

Look at this image of two McDonald's burgers side by side:



The original burger can be seen in the image on the right, while the modified version can be seen on the left. The right burger was sold because of the left burger, and the deception is obvious in this case. Unfortunately, this type of conduct is expected by customers, which allows fast food chains to carry on as usual. ⁽¹⁴⁾

In July 2003: This Redbook cover of actress Julia Roberts is a composite of Roberts' head taken at the 2002 People's Choice award, and her body taken at the Notting Hill movie premiere several years earlier. Publisher Hearst admits its mistake: "In an effort to make a cover that would pop on the newsstand, we combined two different shots of Julia Roberts. We acknowledge that we may have gone too far and hope that Ms. Roberts will accept our apology."⁽¹⁵⁾



Real Estate:

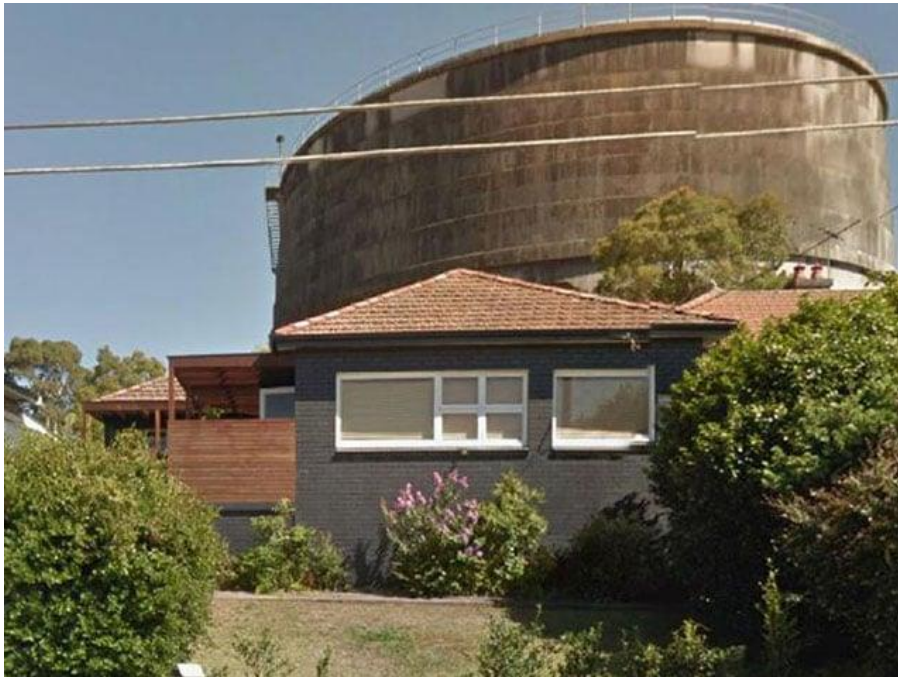
For promotional reasons, the use of altered real estate pictures has become commonplace. Images that have been digitally edited or manipulated to enhance the general look of a building. These pictures are frequently used in marketing brochures to increase the property's appeal to potential buyers or tenants.

In real estate, color correction—which involves changing the image's colors to make them seem more attractive and vibrant—is one of the most widely employed procedures.

Removing items that are distracting or undesired from the image, such as power wires, garbage cans, or other blemishes, creating a panoramic picture of a property via image stitching might give the impression that it is larger. or Virtual staging: Adding furniture, decorations, or other items to a picture to give prospective buyers or tenants a better sense of what the home would look like when equipped.

While image manipulation can make a property look more appealing, it's important to note that it can also be misleading. Before making any judgments, it's usually a good idea to see a property in person. If at all feasible, you should also request unedited pictures or videos of the property. Real estate brokers and photographers should also declare any image editing they have done to the pictures they use in promotional materials.

An Australian real estate company is in hot water this week after it was discovered that one of its listing photographs isn't an accurate depiction of what the property is like. But even though the photo looks like it was manipulated with Photoshop, it may have been a clever composition that uses a wide-angle lens and a tricky perspective. "This kind of behavior falls under the broad umbrella that is the Australian Consumer Law. That states that a product cannot be inappropriately misrepresented in advertising material," ⁽¹⁶⁾



1- Political Propaganda:

As they may affect people's perceptions, beliefs, and behaviors, altered pictures have a big influence on society. Images that have been manipulated can generate a false narrative and distort reality, which can be used to influence or deceive others.

Public opinion may be shaped by manipulating images, which has a negative impact on society. To impact public perception and affect election outcomes, for instance, photos that have been modified or changed to support a specific political position might be utilized. In a similar way, modified pictures may be used to disseminate misleading information or propaganda, which can be detrimental to both people and society at large.

In some situations, Photoshopped images can be used to intentionally mislead or deceive others which is unacceptable or unethical. The photo-editing industry has indeed frequently been accused of promoting or supporting false and unrealistic propaganda to improve the appearance of a subject, or for other gains.

One technique is to use photo manipulation to alter the content of an image. This can range from simple adjustments, such as altering the brightness or contrast of a photo, to more complex manipulations, such as adding or removing people or objects from a scene.

The famous photograph of a Soviet politician, Stalin serves as another illustration of how photo manipulation techniques were utilized in earlier times. The practice of erasing his adversaries from images was well-known.

Regardless of the technique used, manipulated images in political propaganda can have a significant impact on public opinion.⁽¹⁷⁾



For instance, in 2003 in Basra, during the invasion of Iraq, a British soldier was featured on the front page of the LA Times. The widely circulated photograph of an armed British soldier with civilians in Basra appears to show the soldier motioning for the residents to take shelter as a guy standing nearby with a small kid in his arms appears to be pleading with the soldier. It's the type of image that takes home a Pulitzer Prize. Unsurprisingly, it appeared on Page One, huge and above the fold, in the Times and in all six of the front-page columns of the Hartford Courant, a Tribune Company publication just like the LA Times.

However, the image is a fake, created by combining two separate images that were taken one after the other. The standing father and kid are clearly displayed in one (unaltered) photograph in which the British soldier is not pointing and looking away from them. The soldier is waving wildly in the second photograph (also unaltered), but the man and child are considerably less obvious. The obvious conclusion is that Walski purposefully blended two of his excellent genuine images to create one fantastic illicit one. An employee at the Courant observed what looked to be a repetition of objects and people in the background of the photo, which led to the discovery of the picture's forgery. The LA Times was forced to issue an apology when the photographer lost his job.⁽¹⁸⁾



The alterations of the Reuters photo, which was released in 1999 during the Kosovo War, is a disturbing example of cheap faking. It displays an Albanian lady named Sherife Luta who was attempting to cross the border into North Macedonia at the Blace border crossing with 2,000 other migrants.



<https://en.ejo.ch/ethics-quality/the-cheapfake-photo-trend-fuelling-dangerous-propaganda>

The identical image resurfaced online 20 years later. However, this time it has been altered to be used as a propaganda tool. The altered image seeks to convince the viewer that the identical woman is a Serbian bombing victim. On its Twitter account, the Russian Embassy in South Africa published this altered photo.

It appears that the purpose of this propaganda is to bolster the narrative put out by Serbia and Russia on the unjustified NATO involvement in Kosovo in 1999. A survivor of the NATO bombing is purportedly depicted in the shoddy imitation. Actually, the topic is an Albanian refugee who had to flee her country because of Serbian soldiers. ⁽¹⁹⁾

The Iranian Revolutionary Guards' media branch, Sepah News, published a photo on their website in July 2010 that exaggerated the group's military might by removing one unsuccessful missile and substituting another. The photograph was widely disseminated before it was discovered to be a fraud. Two days later, Sepah News posted the original image in its original location on their website. ⁽²⁰⁾



Real Image

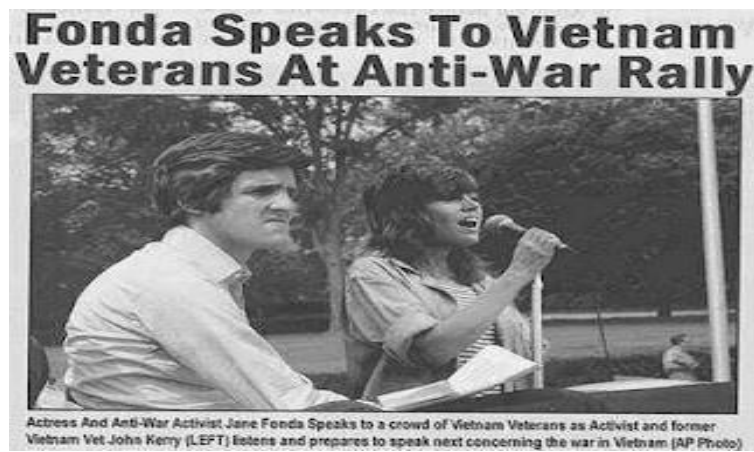


Real Image

In the 2004 presidential election, Democratic candidate John Kerry ran a campaign against Republican incumbent George W. Bush. To appeal to the nationalism of the audience, Kerry heavily emphasized his service in the Vietnam War during his campaign speeches. Then a photo emerged showing Kerry sat next to divisive anti-Vietnam War campaigner Jane Fonda in the 1970s. The image, while being a false fusion of two photographs taken a year apart, caused catastrophic harm to his campaign. With the intention of maligning Kerry's campaign, The Republic released the pictures, and it was successful pictures, and it was successful' ⁽²¹⁾



Original



Fake

In united states, and during the President Trump re-election campaign, a television commercial featured three altered images. People, trees, and a microphone were all removed using picture editing. In one photo, an empty background was created to make Vice President Biden appear to be in an empty space when, in fact, he was not. Fact-checker for the Washington Post Glenn Kessler said that "Political ad-makers frequently seize the ugliest, nastiest photographs they can locate of the opponent. But this elevates it to an all-new level" ⁽²¹⁾.

Conclusion:

In conclusion, manipulated images have a negative impact on society. Our research has shown that such images can alter people's perceptions of reality, leading to unrealistic expectations and distorted self-image. Additionally, manipulated images can spread misinformation and even contribute to the spread of fake news.

The use of manipulated images is particularly prevalent in the advertising and entertainment industries, where the idealization of beauty and perfection is often emphasized. This can have a harmful effect on individuals, particularly on young people who may internalize these unrealistic standards.

Furthermore, the rise of social media has made it easier for manipulated images to spread rapidly, and it is often difficult to discern whether an image has been altered or not. This has led to an increased need for media literacy education, where individuals are taught how to critically analyze images and media content.

Considering these findings, it is important for individuals and organizations to be mindful of the potential negative impact of manipulated images. This includes being transparent about the use of image manipulation in advertising and media, as well as promoting a more diverse and inclusive representation of beauty and body types.

Overall, the impact of manipulated images is a complex and evolving issue. It is important for individuals and organizations to be aware of the potential harm that can be caused by these images and to take steps to mitigate the risks. This includes being cautious about sharing images and videos online, verifying the authenticity of images before sharing them, and supporting efforts to develop technologies that can detect and prevent the spread of manipulated images.

Recommendations :

- 1- It is essential to be aware of the potential impact of manipulated images and to approach them critically. We should strive to promote a more diverse and inclusive representation of beauty, which celebrates individual differences and promotes body positivity. Additionally, we should verify the accuracy of images and information we encounter, particularly on social media, and be mindful of how they can affect our health and well-being.
- 2- As the use of manipulated images continues to grow, it is important that we continue to explore these issues and develop strategies for mitigating their negative effects.
- 3- There is ongoing research into how to detect manipulated images. This includes developing algorithms that can analyze images for signs of manipulation, as well as developing ways to verify the authenticity of images.

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