



History of media manipulation



1860

Abraham Lincoln

Lincoln's head was added on top of southern politician John Calhoun's portrait.



1930

Joseph Stalin

Leaders remove people (from the images) whom they no longer wanted to associated.



1939

Canadian PM

William Lyon Mackenzie King removes King George VI from a photo with Queen Elizabeth to portray himself more powerful.



1945

Soviet Soldiers

Russian magazine removes the watches from soldiers' wrists to ensure that their readers don't think the soldiers were looting.



1989

Oprah Winfrey

TV guide edited the cover image where they used Oprah's head on the body of Ann-Margaret.



1994

OJ Simpson

Time magazine edited OJ Simpson's image after his arrest and made it darker and more sinister. Actual one was displayed in News Week.



2008

Iranian Missiles

The doctored image was released by the Iranian Government to show successful launch of four missiles when only three were successful.



2021

Deepfake Tom Cruise

Near realistic deepfake of Tom Cruise indicates the potential of AI based media manipulation. Image courtesy: Belgium VFX specialist Chris Ume.



Media modifications for creative applications



Original





JPEG Fake Media



Fake Media

- The scope of JPEG Fake Media is the **creation of a standard** that can facilitate the **secure and reliable annotation** of media asset **creation** and **modifications**.
- The standard shall support usage scenarios that are in **good faith** as well as those with **malicious intent**.

Modified Media

*Nothing to hide, transparency
'Good' purpose/intention*



Modified Media

*Hiding is essential !
'Bad' purpose/intention*