The Art Of Image Altering
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What is real? What is a true likeness? The smiles on their faces are genuine, but what ends up in the family album may not look exactly the same.

We can now alter these class pictures digitally so no kid has a runny nose or a blemish in the final photo.

In our digital age, images fly at us with remarkable speed and frequency. Computers, television, cell phones — this flood of visual information pours into our eyes, and our brains then determine if we like what we see. But, more and more, my brain is asking, is it real? Or is it a contrivance? Has it been touched up for vanity? Or altered to make a political point?

For example, a photographer added more smoke to a picture of the war in Lebanon for effect.

"It was a pretty crude manipulation," Dr. Hany Farid, who teaches computer science at Dartmouth, told The Early Show co-anchor Harry Smith. The truth came out and the photographer was fired.

John Kerry’s political enemies tried to pass judgment on his patriotism when they found this photo with anti-war activist Jane Fonda, which eventually turned out to be fake.

Regrettably, Katie Couric lost a dress size or two to a photo editor at CBS Promotions. Flattery? Or a failure to communicate?
We assume the pictures we see in glossy magazines have been touched up, but what of the photos of your family and friends? Have they been touched up a little? And does it matter?

"A lot of people who do Match.com send me photographs," Farid said. "They're about to meet somebody and I can tell you the vast majority of images on dating sites have been at least manipulated in some way."

Farid helped invent software that can detect when an image has been digitally altered. Sometimes it really does matter, from a police surveillance video to medical malpractice images.

"Men taking the hairline and bringing it down a little bit — very common," he said. "And very easy to do. It's my favorite manipulation. I mean, some of the most famous portraits of Abraham Lincoln, for example, are his head in somebody else's body. Stalin famously airbrushed people out of photographs that fell out of favor. It's not that it hasn't been done. It's just that it's just so much easier and so much more prevalent now."

What makes it all so easy is Photoshop, made in Silicon Valley by Adobe. With Photoshop you can alter just about anything.

"When it comes time to work with images it's the standard," Dave Story, Adobe's vice president of product development, said. "Everyone uses it. Every image that you see in print, on TV, other places, you could be completely assured that Photoshop has likely touched that image."

In the fashion world models are modified to a level of perceived beauty that doesn't exist anywhere but on billboards.

Dove soap produced a short film that details the full Madison Avenue beauty process complete with computer manipulation that stretches the model's neck and adjusts her eyes to a size you'd never see on an actual person.

"You know it's so hard to be human in the face of all this stuff," writer for Adweek Magazine, Barbara Lippert, said. "And I think for young girls, it's really important to see this. Because, you know, there's no plastic surgery right now that can elongate your neck or make your eyeballs twice the size that you were born with. And so, all this illusion, all of this fantasy of what you want is just based on such non-reality that it really makes you crazy."

Very few digital artists walk that line between fantasy and reality as often or as successfully as Matt Mahurin. If you've visited a newsstand in the past 20 years, chances are you've seen his work in Rolling Stone, Esquire and G.Q. He has done about 40 covers for Time. He works alone in a spare New York studio, using only a small camera, a computer and — more often than not — his own face.
"I just painted my beard white and went out and got a coat and these Freud glasses," he said, referring to a 1993 cover of Time which featured a story on Sigmund Freud.

Weirder still, on another Time cover of a caveman it's Mahurin's face again, digitally reworked. On the Time cover after the Abu Ghraib revelations, Mahurin used a manipulated photo he took of himself to make an image of what appeared to be a torture victim.

"I think probably the way it's labeled inside the magazine is photo-illustration," he said.

Mahurin's most controversial work was the 1994 O.J. Simpson's mug-shot. Mahurin darkened the image, a step that he saw as editorial but others read as racist.

"My situation was, is that my work is taken in context ... I work dark images," he said. "I do dramatic images. I don't do -- you know, I don't do brightly colored things. I don't do greeting cards, I do dark images. And to me this was a dramatic moment. I've always believed in the power of images, and so for me that was, you know, that was all part of it. It's an experience that I would not wish on anybody, but I would not have traded it for anything either."

What we don't remember is the caption on the cover. The words, the explanation, are irrelevant: It's the image that's king in the end. Seeing is believing, but there are methods for telling the altered photos from the real thing.

"When you compare those two swatches, these four dots, I call them truth dots, which proves mathematically that this image has been doctored since it came out of the camera," Story said.

The images insist that we be as sophisticated as the software that's used. "The analogy I always like to draw is, imagine a pile of sand," Strong said. "And when does it go from a couple of grains of sand to a pile? And surely, taking one grain of sand on and off doesn't fundamentally change the pile of sand. But at some point, it's no longer a mound of sand, and it's just a couple grains. But where did that transition happen?"

"And it's the same thing with an image. When you start disturbing pixels — little elements of an image — is one okay? Is two okay? Is three okay? And when does is stop becoming okay? And I don't think there's a simple answer to that."

Maybe it's a little like cosmetic surgery: if you've had too much, then you don't look like yourself anymore.

http://www.campaignforrealbeauty.com/home_films_evolution_v2.swf