



## Google's New AI System Unscrambles Pixelated Faces

AI has millions of applications, including redefining insufficient images and pictures. The intelligence application for bio-identical identification is immense. Again, Technocrats invent because they can, not because they need to... □ TN Editor

Google's neural networks have achieved the dream of [CSI](#) viewers everywhere: the company has revealed a new AI system capable of "enhancing" an eight-pixel square image, increasing the resolution 16-fold and effectively restoring lost data.

The neural network could be used to increase the resolution of blurred or pixelated faces, in a way previously thought impossible; a similar system was demonstrated for enhancing images of bedrooms, again creating a 32×32 pixel image from an 8×8 one.

[Google's researchers describe](#) the neural network as "hallucinating" the extra information. The system was trained by being shown innumerable images of faces, so that it learns typical facial features. A second portion

of the system, meanwhile, focuses on comparing 8×8 pixel images with all the possible 32×32 pixel images they could be shrunken versions of.

The two networks working in harmony effectively redraw their best guess of what the original facial image would be. The system allows for a huge improvement over old-fashioned methods of up-sampling: where an older system might simply look at a block of red in the middle of a face, make it 16 times bigger and blur the edges, Google's system is capable of recognising it is likely to be a pair of lips, and draw the image accordingly.

Of course, the system isn't capable of magic. While it can make educated guesses based on knowledge of what faces generally look like, it sometimes won't have enough information to redraw a face that is recognisably the same person as the original image. And sometimes it just plain screws up, creating inhuman monstrosities. Nonetheless, the system works well enough to fool people around 10% of the time, for images of faces.

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