



I am a terrible artist. This is one reason why I like Neural Style Transfer so much. Using AI you can transform a mundane image into a work of art. Ok, I'm not referring to the images above- no work of art should ever feature my face. See below for some better examples.

Neural Style Transfer is a method of combining the style of one image- perhaps a classic painting or any kind of photo- with your own image, effectively repainting your image in the style of the other, using a deep neural network. The method is based on a [great paper by Gatys et al.](#), where the details are outlined. Since that paper was published, many good tutorials have appeared, allowing you to implement this yourself. I learnt to use this method from [this blog by Adrian Rosebrock](#), which gives excellent instructions to get started with images (using Python and OpenCV), and even implementing this in your webcam feed in real time (be warned though- unless you have a very good processor it is very slow).

Here's an example of a plain image of an English field that livens up once we introduce some style:



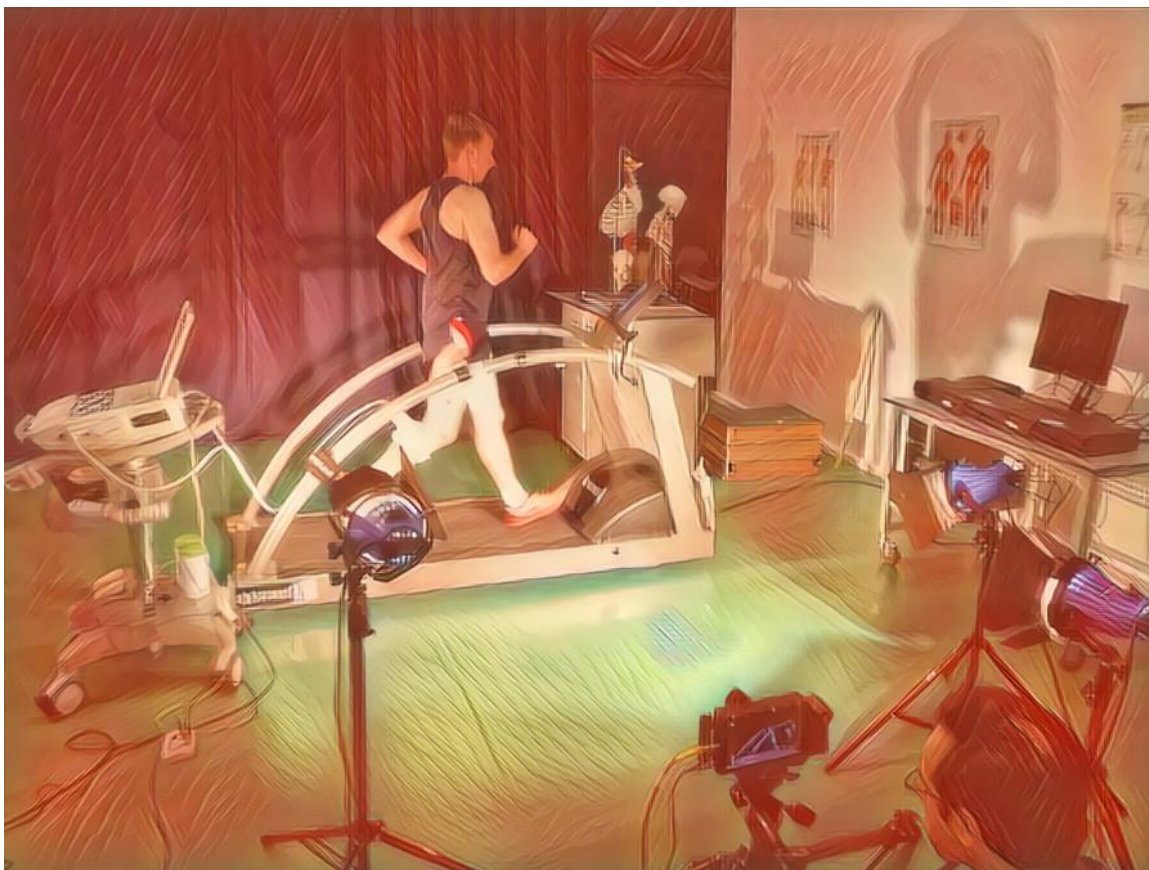


And while we're at it, let's see what we can do with a few other simple images:



Not bad, but not especially useful to a scientist. Below is an example of a stylised photo that could potentially be used in a scientific publication, for example when showing an experimental setup (obviously annotations could be added after stylising). Maybe this is the future of figures in scientific papers?!

Err...probably not, but it's fun to play around.



By the way, if you'd like to try this out but are not into programming, you can just setup a free account at [www.deepdreamgenerator.com](http://www.deepdreamgenerator.com) instead. They don't have an unlimited set of styles but there should be enough to keep you busy. The main advantage of coding this yourself is that you can transfer the style from literally any image you want, rather than relying on 'built-in' styles.