The Hubble Space Telescope has an Impressive New Year's Resolution

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A couple of years ago the film *Pixels* hit the big screen. The film centred on the classic arcade games, like Pac man and Donkey Kong. These games are famous for their blocky, "retro" appearance, which is caused by a low number of pixels.

Pixel is short for 'picture element'. They are the tiny, coloured dots that make up the pictures on our TV, computer and phone screens.

The number of pixels that make up an image is called the 'resolution'. More pixels means a higher resolution and better quality image. Low resolution images can be blurry and missing little details or colours.

To give you an idea of how resolution has improved over the years, the first Pac man game had a resolution of 64,000 pixels, while the best phones today have a resolution of more than 40 million pixels. But if you're really serious about high resolution, look towards astronomy.

Astronomers make their living studying objects so faint and distant they're invisible to the naked eye. These objects require the best possible conditions to see: clear, dark skies and state-of-the-art cameras.

The picture above was taken by the Hubble Space Telescope. It shows an enormous nearby spiral galaxy made up of 40 billion stars. The galaxy is so big that Hubble had to take 54 individual pictures and stitch them together into a mosaic just to show the central region of the galaxy and its inner spiral arms.

But what's truly impressive about this picture is the resolution – it's made up of a staggering 665 million pixels. We can make out between 10 and 15 million individual stars. That is certainly an impressive resolution for 2019!

🚀 COOL FACT

Cameras on the most powerful smartphones today reach a maximum resolution cameras of around 48 million pixels. While the digital camera with the highest resolution boasts 150 million pixels.

This Space Scoop is based on a Press Release from Hubble Space Telescope.
Hubble Space Telescope