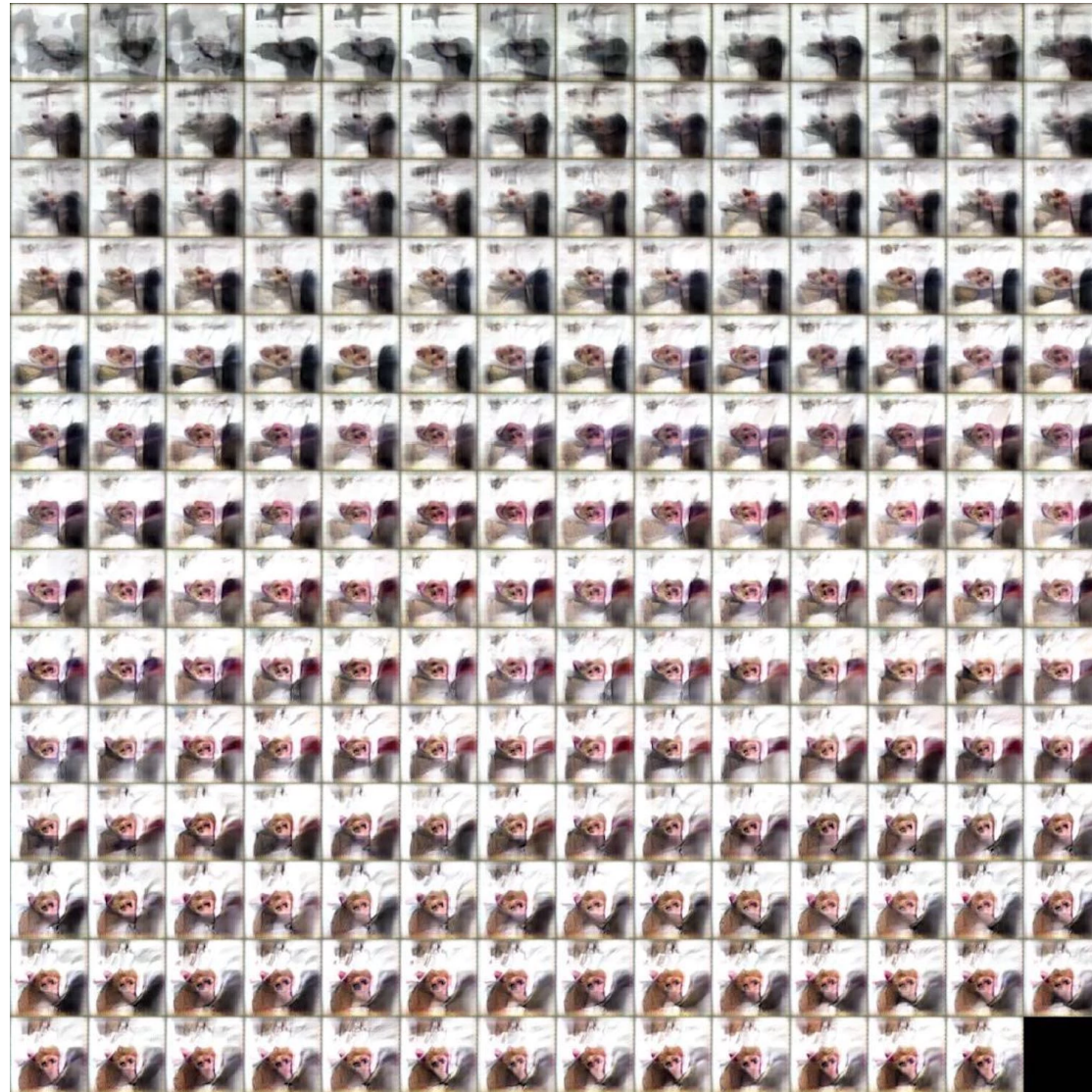


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OK

A picture that does a monkey's head in



The evolving visual journey of firing monkey neurons.
CREDIT: PONCE, XIAO, AND SCHADE ET AL./CELL

This densely packed selection of images changes, from its start point in the bottom right-hand corner to its conclusion in the upper-right.

The pictures that make it up were not made by human hand, but rather through the interaction of the neurons in the brain of a macaque and an algorithm called XDREAM.

Researchers led by Margaret Livingstone at Harvard Medical School, US, wanted to examine the speed at which individual neurons in the cortexes of monkeys fired in response to visual stimuli.

Each time a neuron fired, the algorithm adjusted the image in response. The more rapid the rate of firing, the greater the changes.

Over several experiments, the researchers found that photo-realist images gradually morphed into more abstract representations.

“What started to emerge during each experiment were pictures that were reminiscent of shapes in the world but were not actual objects in the world,” says co-author Carlos Ponce.

The research is **published [1]** in the journal *Cell*.

Curated content from the editorial staff at Cosmos Magazine.

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