

Mass extinctions speed up evolution, according to robots

A computer science team at The University of Texas at Austin has discovered that virtual mass extinctions push robots to evolve more quickly and efficiently, suggesting that mass extinctions speed up evolution by encouraging new features and abilities in surviving lineages.

In the world of the living, mass extinctions are associated with utter destruction and the loss of a significant amount of genetic material. This is something that's generally seen as a negative, especially since surviving populations may be small, leading to inbreeding and [eventually more extinctions](#).

However, some evolutionary biologists hypothesized that such events are actually more positive, as generally only the most evolvable species survive—meaning evolution can leap forward as they fill in the gaps left behind by now defunct species.

Or, as co-author and computer scientist [Risto Miikkulainen phrased it](#), “Focused destruction can lead to surprising outcomes. Sometimes you have to develop something that seems objectively worse in order to develop the tools you need to get better.”

In order to test this theory, the researchers used simulated robot brains known as artificial neural networks (ANNs) on which scientists can use evolution-inspired algorithms in order to help the “brains” improve at a task from one generation to the next.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis. Read full, original post: [Robots show that mass extinctions accelerate evolution](#)