

"Dumbing Down"

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The "saying" that all things improve with age may or may not apply to automated systems. Here, we question whether intelligent machines can actually lose whatever intelligence they have supposedly learned.

here seems to be an implicit assumption that when machines "learn" they get "smarter." Is this true? In the United States, there are people who believe that the current public education system is producing a younger generation that is "dumber" than their parents. If that is true, from whom did the younger generation learn? How have we wound up with U.S. high school students who don't know who the first President was or how many states are in the country? (Some people refer to this as the "dumbing down" of society.) This leads me to ponder a question: Can intelligent machines get dumber over time?

While I'm not sure if this is the best way to state the question, I believe it should be asked. Learning may not always be moving us forward; it might be moving us backward. The concept of garbage in, garbage out cannot be understated.

It seems plausible to me that automated learning can result in undesirable and unanticipated consequences, where intelligence is not necessarily generated, but nonsense is. We know that in software maintenance, a

Digital Object Identifier 10.1109/MC.2021.3135679 Date of current version: 6 May 2022 I'm sure you have cringed at least once after you heard that a "system upgrade" was coming because, based on previous experiences, you know that a "system downgrade" is more likely. And while I'm not trying to be a "fly in the ointment" or rain on the parade of anyone who is "all in" for machine learning, I think the

software lifecycle process that is expected to improve or sustain software

over time, new software versions are sometimes worse than earlier ones.

DISCLAIMER

question is worth asking.

The author is completely responsible for the content in this message. The opinions expressed here are his own.

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