Computers are not as reliable as many of us believe

Publication Date: 2024-01-22

Author: Unknown

Section: Technology

Tags: Computing, UK criminal justice, Google, Facebook, Meta, letters

Article URL: https://www.theguardian.com/technology/2024/jan/22/computers-are-not-as-reliable-as-many-of-us-believe



You published several letters arguing that computers themselves are reliable (Computers rarely go wrong, but computer systems often do, 17 January). The truth is somewhat less positive. While computer hardware is more reliable than most current software, data-corrupting flaws in hardware do exist, and more are found over time. Some, such as rowhammer, become well known as security flaws, others become famous through recalls (like the Pentium FDIV flasco), but most pass unnoticed by the general public and are quietly fixed or mitigated in microcode. Research papers from Google (Cores That Don't Count) and Facebook (Silent Data Corruptions at Scale), as well as a perusal of published errata documents, show that we should question very hard whether assuming a computer is reliable is a fit assumption for a criminal conviction, unless backed up by other evidence such as logs, audit trails and good evidence of internal self-checking within the software. Alan Cox Swansea • Do you have a photograph you'd like to share with Guardian readers? If so, please click here to upload it. A selection will be published in our Readers' best photographs galleries and in the print edition on Saturdays.