

# Computers rarely go wrong, but computer systems often do

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Your article on the presumption of computer reliability zeroes in on the wrong target (Update law on computer evidence to avoid Horizon repeat, ministers urged, 12 January). Computers generally can be relied on to do what they are asked to do. Electronic anomalies and mechanical failures do occur, but not often. When people talk about bugs, they normally mean software that doesn't do what it is supposed or was expected to do. The key issue is: what has the computer been asked to do in any particular set of circumstances? In a large system, that becomes dauntingly complicated, as business rules interact in permutations too numerous to test exhaustively. So the question is not whether the computer is reliable (it probably is) but whether the computer system can be relied upon to produce the result its designers would have wanted in every situation it encounters. That is usually much harder to work out, and the answer may have to reflect reasonable probability rather than absolute certainty. Either way, it needs to be positively established rather than presumed. Mark de Brunner Burn Bridge, North Yorkshire • There is an important word missing from your report. It isn't computers that tend to be fallible but computer systems. Computer systems bring together the hardware and software, and it is this latter element where fallibility tends to manifest itself. Yes, computer hardware can suffer from failures, but it is the job of the software to ensure that any transactional data being moved, for example between a local terminal and a central server, arrives intact. If the communications link fails, the software must know a transaction is incomplete and be able to recover. Such systems exist; one such is the internet. Hopefully, the words in this letter, which was sent via email, will have arrived in the Guardian's email system in the same order they left my computer, but they may have been delivered in several numbered "envelopes". Mike Lowcock Sandbach, Cheshire • Computers are rarely fallible – it is within the human element that programs them that problems arise. Pete Lavender Woodthorpe, Nottinghamshire • 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.