

## Blaming the Humans

A Danish frigate accidentally launched a Harpoon missile back in the 1980s. It was an accident that couldn't happen.

A weapons officer was testing the system, and he knew that the launch key was securely stored in the captain's safe.

Unfortunately, under very specific and undocumented circumstances, it was possible to launch a missile without the key. As luck would have it, nobody was hurt. The launcher happened to point towards land where the missile destroyed four summer cottages and damaged a few dozen others. But if the launcher had pointed the other way, it would have flown down the Great Belt and would have found a ferry with hundreds of people on board.

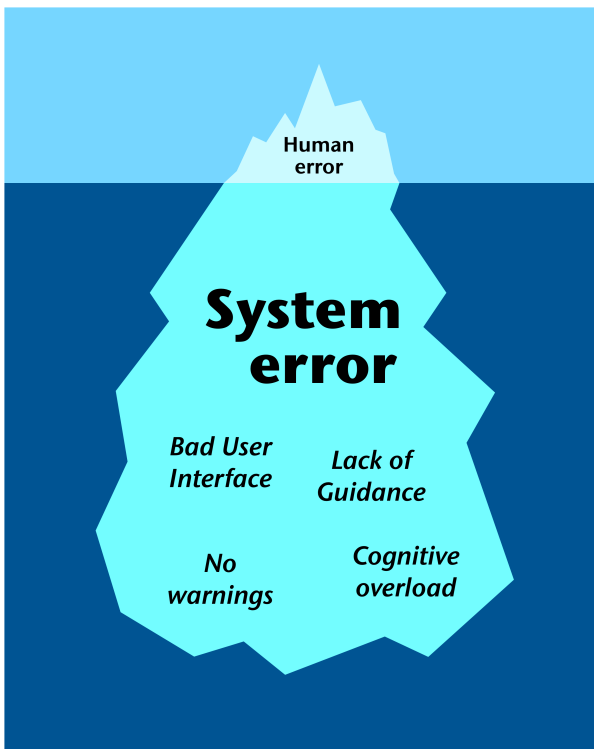


The initial investigation absolved the weapons officer of blame. However, this happened at the height of the cold war. 180 other NATO ships were carrying this weapons system, and it wouldn't look good if they could accidentally launch missiles at any time. So, the conclusion was rewritten, and the report was classified. The unfortunate officer was reprimanded and disgraced to cover up the error in the system.

When the first Boeing 737 MAX-8 crashed, Boeing immediately tried to pin the blame on pilot error. It turned out that the flight control software had a deadly flaw. The pilots might indeed have saved the aircraft, but only if they had accurately diagnosed the problem within four seconds. That was obviously impossible, as the second crash showed. But again, the immediate reaction was to blame the humans.

Last year, Citibank accidentally paid out \$900 million. They had meant to pay only a small portion of the loan amount, but a bank employee clicked the wrong button and paid back the full loan. Last month, a judge rules that one of the recipients could keep \$500 million they received in error. Again, management put the blame on an individual human.

In all of these cases, it is true that the first cause was ultimately human. If some human had not done something wrong, the accident or mistake wouldn't have happened. But the underlying cause is bad system design. The Harpoon missile system was eventually fixed. The Boeing 737 flight control software was fixed. And Citibank is looking at a long-overdue replacement of their arcane backend systems. A modern system provides a user-friendly interface with guidance, warnings and controls, and would have prevented the \$900 million mistake.



As a CIO or CTO, you need to make sure your organization extracts maximum learning when something goes wrong. Check some of the post-mortem reports from unfortunate incidents. If the error is blamed on a human that should just have acted differently, the analysis has not reached root cause.

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