

## All.Net Analyst Report and Newsletter

### Welcome to our Analyst Report and Newsletter

#### **When the consequences are disproportionate to the operational acts (e.g., Facebook)**

When the damage is disproportionate to the operational error, the cause is bad governance, and usually more particularly, poor risk management in the form of failure to properly consider risk aggregation and interdependencies. This is ultimately the CEO's fault.

When the benefit is disproportional to the operational improvement, the cause is good luck, unless it happens repeatedly and systematically, in which case the cause is good governance and the effect of a good CEO (who hired a team that did their jobs well).

#### **Operations often gets too much blame**

As a fundamental, people are not perfect. Neither are mechanisms. And as a result, composites made of people and mechanisms are also imperfect. People and mechanisms have faults, and the composite of those components will suffer faults from each and the combinations of them and their interactions.

Failures are ultimately the result of uncovered faults. And whatever the rate of component faults is, the rate of composite failures can be adapted to a desired (finite) level by the use of proper redundant architecture, design, implementation, and operation.

This is a longstanding result of fault tolerant computing, certainly at least 70 years old<sup>1</sup>, and ultimately based on the concept of making reliable systems out of unreliable parts.

When something fails, it's ultimately in the hands of operations to fix it, but the reason most things fail with disproportionate consequences is because of faults that are inadequately covered. I don't care if someone fell asleep at the switch, people fall asleep. A proper switch will have a dead-man mechanism and fail in a "safe" mode if the consequences justify it. Whether the person fell asleep or died of a heart attack, or was hit over the head, or got distracted, that should not cause unjustifiable (or disproportionate) consequences.

#### **Proximate vs. root cause**

The proximate cause of the explosion that killed a few thousand people may have been a person who failed to put on a spark arrestor properly, but why did that person do that? Was it bad design, inadequate training, and inadequate design, suicide, or what? The consequence being so high for a cause so readily achieved implies a flaw in the composite, because a fault produces results disproportionate to the proximate cause. It comes down to management not taking reasonable and prudent precautions, and that's a governance issue the lays at the feet of the CEO (and possibly a board that hires/fires CEOs, and the owners who elect the board).

#### **Conclusions**

The CEO is in charge. If they don't do their job well the whole company fails. Every success is due to the team. Consistent proportionality reflects a CEO doing the job well.

<sup>1</sup> John von Neumann, "Lectures on PROBABILISTIC LOGICS AND THE SYNTHESIS OF RELIABLE ORGANISMS FROM UNRELIABLE COMPONENTS", Jan 4-15, 1952.  
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