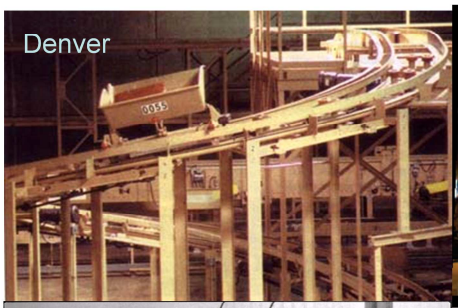
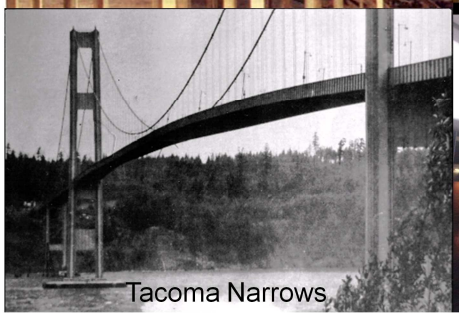
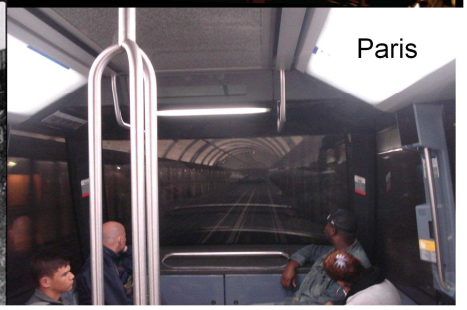
Alcuni casi famosi

IS 2010/11

Chi è l'intruso?







Il “Vasa”

Wiewpoints, CACM sept. 08
by Kode Vicious
Navigating the well-traveled course of communication failure that often leads to engineering disasters.
The *Vasa* was built between 1626 and 1628 for King Gustavus Adolphus of Sweden, who was, at that time, attempting to rule the Baltic Sea. In the 17th century, rulers were expected to be capable of more than just giving orders, so Adolphus not only organized wars, he also helped design the ships of his naval fleet. At the time Swedish warships had one deck of cannons on each side from which they fired fusillades at enemy ships, sometimes even hitting the other ships and damaging them. When the *Vasa* was commissioned, this single row of cannons was considered state of the art. Some time during the construction of the ship Adolphus found out that the Poles had ships with two decks of guns, so he modified the design of the *Vasa* to have a second gun deck.
This would have made it the most powerful naval vessel of the time, capable of delivering a broadside of devastating proportions. The men he had contracted to build his ships attempted to explain that the ship had too little ballast to support two gun decks, and that the resulting ship likely would be unsafe to sail. The King insisted—just like, say, many project managers—that his orders should be followed.
On a software project you can quit, but if the King is your boss you might lose more than your job—you might, say, lose your head—so the project went forward.
In 1628 the ship was finally ready for quality assurance (QA) testing. Seventeenth-century QA of ships was a bit different from what might happen today. Thirty sailors were picked and asked to run back and forth, port to starboard, across the deck of the ship. If the ship didn’t tip over and sink, then the ship passed the test. You did not want to be on the QA team in 1628. After only three runs across the deck the *Vasa* began to tilt wildly and the test was canceled.
The test may have been canceled, but not the project. This was the King’s ship, after all, and she would sail. And sail she did. On August 10, 1628, in a light breeze, the *Vasa* set sail. She was less than a mile from dock when a stiff breeze knocked her sideways. She took on water, and sank in full view of a crowd of thousands of onlookers. Approximately 30 to 50 sailors were killed when they were either trapped in the ship or were unable to swim to shore.
In response to the catastrophe, the King wrote a letter insisting that incompetence had been the reason for the disaster. He was, of course, correct, but not in the way he might have envisioned.
An inquest was held and the surviving members of the crew, the captain, and the ship builders were questioned as to the state of the crew and the ship at the time of the incident. The mostly unstated belief by the end of the inquest was that the design had been a failure and the designer had not listened to the builders about the shortcomings of the design.

Il ponte di Tacoma Narrows

http://www.youtube.com/watch?v=3mclp9QmCGs

On November 7, 1940, at approximately 11:00 AM, the first Tacoma Narrows suspension bridge collapsed due to wind-induced vibrations. Situated on the Tacoma Narrows in Puget Sound, near the city of Tacoma, Washington, the bridge had only been open for traffic a few months.

Trasporto bagagli a Denver

DENVER: Ten years ago, the new Denver International Airport marched boldly into the future with a computerized baggage-handling system that immediately became famous for its ability to mangle or misplace a good portion of everything that wandered into its path.
Now the book is closing on the brilliant machine that couldn't sort straight.
Sometime over the next few weeks, in an anticlimactic moment marked and mourned by just about nobody, the only airline using part of the system will pull the plug.
People will be back in charge.

1995

The Denver airport baggage handling system was so complex (involving 26 miles of conveyors and 300 computers) that the development overrun prevented the airport from opening on time. Fixing the incredibly buggy system required an additional 50% of the original budget - nearly $200m.

2005

Despite years of tweaking, it never ran reliably. Airport managers pull the plug, reverting to traditionally loaded baggage carts with human drivers (Jackson, Scientific American, June 2006).

By Kirk Johnson
New Herald Tribune, SATURDAY, AUGUST 27, 2005

Météor a Parigi

Driverless CBTC System
for Line 14, Paris, France
The driverless, fully automatic "Météor" (Metro Est-Ouest Rapid) Line is the first new underground line in Paris since 1934.
For the 8 km line, Siemens Transportation Systems supplied Météor as CBTC (Commmunication-based Train Control) system, monitored from an operations control centre, equipment for 7 stations and 19 six-car trains. The headway is 85 seconds. Commissioning took place in 1998 (extension in 2003).
The successful project implementation resulted in a follow-up contract for the Roissy Airport Shuttle of Line 3, including automatic train operation (Val system), and a follow-up contract for Line 1.

Quindi?

- Anche gli ingegneri con decenni, se non secoli, di tradizione alle spalle possono sbagliare
- Anche i produttori di software possono aver successo
- Anche i produttori di software devono imparare dagli errori
- Anche i produttori di software devono diventare ingegneri (del software)