Broken Windows

In 1969, Stanford University psychologist Philip Zimbardo conducted an experiment on human nature. He abandoned two similar cars in different neighborhoods – one in the heart of the Bronx, N.Y., the other in an affluent neighborhood in Palo Alto, Calif. He removed the license plates, left the hoods open, and chronicled what happened.

In the Bronx, within 10 minutes of abandonment, people began stealing parts from the alluring car. It took approximately three days to strip the car of all valuable parts. Once stripped of economic value, the car then became a source of entertainment. People smashed windows, ripped upholstery, and chipped the paint – reducing the car to a pile of junk.

In Palo Alto, something quite different happened – nothing. For more than a week, the car sat unmolested. There was no theft, vandalism, or even a scratch. Puzzled, Zimbardo, in plain view of everyone, took a sledgehammer and smashed part of the car. Soon passersby were taking turns with the hammer, delivering blow after satisfying blow. Within a few hours, the vehicle was resting on its roof, demolished.

Among the scholars who took note of Zimbardo's experiment were two criminologists: James Q. Wilson and George Kelling. The experiment spurred their now famous *broken windows* theory of crime. Their premise is that if a broken window remains unrepaired, vandals will soon break a building's remaining windows.

Why is that? Aside from the fact that it is fun to break windows, why does the broken window invite further vandalism? Wilson and Kelling's hypothesis is the broken window sends a signal that no one is in charge, breaking more windows costs nothing, and there are no consequences to breaking more windows.

The broken window is a metaphor for ways behavioral norms break down in a community. If one person scrawls graffiti on the wall, others will soon be spraying paint. If one aggressive panhandler begins working a street block, others will follow. In short, once people begin disregarding norms that keep order in a community, both order and community unravel.

Police in big cities have dramatically reduced crime rates by applying this theory. Rather than concentrating on felonies, they aggressively enforce minor offenses like graffiti, public drinking, panhandling, and littering. This police enforcement sends a signal that broken-window behavior has consequences in a city. If you cannot get away with jumping a turnstile in the subway, you had better not try armed robbery.

At this point, you are wondering what crime in the streets has to do with software development. The broken window theory plays out in software development organizations daily. Software managers inadvertently send signals that no one is in charge and there are no costs or consequences to ignoring project norms. Before you say "not on my project," you might want to look for some classical *broken windows* in your organization.

Problems arise when managers allow prima donnas to dominate, intimidate, and dictate projects. It is tempting to let a technical superstar take the lead, especially for managers who question their own engineering talent, but they will pay in the end. Once ideas are stifled and insults start flying, team members will opt out or limit their contribution to the project. The prima donna will get overloaded and then the vandalism will begin. Broken stained glass is still broken glass. Do you cultivate sages who are inclusive and teach their craft, or prima donnas who hide their weaknesses and feed their insecurities?

Do you have managers whose directions are clear as mud? Like the opaque window in a bathroom, they appear to shed light on the subject but in reality, things are not that bright or clear. After a while, some engineers enjoy these opaque managers because if directions are not clear then accountability is not clear. If accountability is not clear, then this project is a free for all, so start breaking the windows. Are you blocking the light or letting the sunshine in?

Troubles occur when managers exert their authority by hoarding information and tightening control. Collaboration and initiative are dirty words to these comptrollers. Everything runs on maximum management sanction and minimum information sharing. Processes stall or wander, engineers revert to cruise control, and information flows like Molly Brown through a portal window. Do you lead, manage, or choke your projects?

Then there are indecisive managers, the sliding glass doors of management. People are enamored with sliding glass doors until they own one. Then you discover the door is always open when you want it closed and kids are constantly running into it when closed, thinking it is open. Like a sliding glass door, you never seem to be accordant with indecisive managers. They never provide direction and avoid decisions until you make a move, then there they are – blocking progress or letting the air out of your project. Are you indecisive? Need more time to think about it?

Space and time is running out so we will have to discuss the skylight manager, triple-pane glass manager, tinted window manager, two-way mirror manager, and the cockpit canopy manager another time.

The point is, once managers begin disregarding norms that keep order in a project, both order and the project unravel. Repair the broken windows in your management style and order will return.

Amazingly, I think Wilson and Kelling's theory may explain the mystery of software quality. From its first release to present versions, Microsoft Windows was released broken. Distributing broken Windows sends a signal that no one is in charge, there are no consequences, and breaking more Windows software is okay. Software norms break down and our systems vandalized – all from broken windows.

—Gary Petersen
Shim Enterprise, Inc.