

Performance Architecture Roger Addison & Carol Haig

## Processes That Can Kill You

Recently, Roger checked into his room at a major U.S. hotel. He reviewed the emergency exit map on the back of the door to be sure he could locate the nearest way out should he need to. But the map was reversed! If Roger had not verified it by looking out into the hallway, and had there been a fire or other disaster, following the map could have killed him.

U.S. Fire Departments require hotels to post such emergency exit maps in all guest rooms. It is part of the fire mitigation process in our municipalities and is intended to save lives in a fire or other disaster. But what if the maps in some other rooms, or maybe all of them, were also reversed? What about the other hotels in this large chain? What about the vendor who produced the maps?

### The Performance Architect's Approach

As Performance Architects, we are inquisitive and accustomed to investigating how work gets done across a broad spectrum of organizations. We welcome opportunities, such as this one, to gather illustrative examples for improving performance. After all, an opportunity to save lives certainly qualifies as performance improvement!

That said, Roger's experience made us curious about other well-intentioned processes that if poorly designed or not regularly observed and reviewed, could lead to death or serious injury. After collecting examples from friends and colleagues, we realized that some processes, if badly executed, might be lethal for people while others could do significant damage to client relationships, to product and service success, and could, well, *kill*.

### Potentially Lethal Processes

High-risk processes are everywhere and in every industry. Some examples:

#### Construction

A colleague of ours is an architect. While visiting a building he discovered that the exit doors from a public room opened *into* the room rather than *out*. Reversing the doors was an easy fix, but the construction process required investigation because somewhere between the original blueprints, the instructions to workers, and the foreman's sign-off, those doors were overlooked. In an emergency, buildings often go dark, people panic, and lives could be lost struggling to PUSH doors that were mistakenly hung to be pulled.

**Aviation**

And what about airplanes? We were told of a plane that was airborne before anyone noticed that one of the outside doors was not properly closed. Even the well-known crosscheck process that flight attendants perform the world over did not catch this potentially fatal situation before takeoff.

An airplane crosscheck process in the passenger cabin, like the pre-flight checklist process pilots follow in the cockpit, must work even when a delayed departure or other on-the-ground challenge is present. As with any routine process, repetition helps imbed the steps in the flight attendant’s memory. And, any rote process is likewise subject to degradation over time. In this example, the crosscheck was announced, but someone did not double-check that the door looked and felt properly closed.

**Medications**

Another colleague helps his wife monitor the medications she takes daily. Her prescriptions change from time to time as do the dosages, and it is easy to become confused about what she has or has not taken. She has had some frightening experiences when she mistakenly skipped a pill or took too many. Our colleague created the job aid below to help his wife avoid such life-threatening situations. They have copies strategically located throughout their home.

Quick Ref Guide for Meds		
9.17.13		
Medication	Dosage	Quantity
Abilify	2.5 mg	1/day
Cymbalta	60 mg	1/day
Bupropion	300 mg	1/day
Ritalin	20 mg	2/day
Clonazepam	1mg	2/day
Atorvastatin	10mg	1/day
Prempro	.45/1.5 mg	1/day
<b>Total Pills/Day</b>		<b>9</b>

**Surgery**

And while we are looking at the medical field, surgeon and author Dr. Atul Gawande wrote *The Checklist Manifesto – How to Get Things Right*. In it, he demonstrates how something as basic as a checklist, which is one way to monitor a process, can save lives in the operating room.

Dr. Gawande describes the three main causes of death during surgery: infection, bleeding, unsafe anesthesia. In concert with the World Health Organization, Gawande developed the [Surgical Checklist](#). Initially believing that he, personally,

would not benefit from using this checklist, Dr. Gawande then decided it would be hypocritical not to use it. He relates that he has yet to get through a week of surgeries without the checklist catching something critical that would otherwise have been missed. It is safe to say that this process saves lives.

## How to Avoid Death by Process

Any business process must be both effective—it does the right things—and efficient—it does them right. The process must also:

- Add value for the user and the enterprise
- Support the organization's values and strategy (Processes: The Good, the Bad and the Ugly)

As with most aspects of business, processes have a life cycle. At each stage of that life cycle there is an opportunity to check that the process will not kill anyone or any part of the business it is supporting. Let's look at the stages in the life of a process and what to do to avoid killing of any kind:

### Design

- Initially, thoroughly explore the need for the process
- Identify all workers who will be following the process
- Research obstacles to understanding before beginning the design – do not, for example, assume that all your hotel guests will know how to read a floor map
- Create the initial process design

### Develop

- From your initial design, refine and improve it
- Test a prototype with representatives from the user group
- Further refine your design based on your observations and on feedback from your test users
- Establish measurement criteria for the effectiveness of the process

### Implement

- Conduct a beta test of the process with other target users and make further refinements as needed
- Modify the measurement criteria if necessary
- Go live with the process
- Measure and report the results

### Evaluate

- Establish checkpoints into the future to monitor the process and the workers who use it
- Schedule regular follow-up and refresher/coaching – a process can become rote and errors can creep in over time

### Review

- Identify/assign a process owner to monitor the process and its users
- Schedule process reviews to maintain relevancy
- Retire or replace the process when it no longer serves its intended purpose

### Observe the Process

All processes, regardless of their frequency of use, must be reviewed regularly and their use observed to ensure that the desired results are produced every time. Critical to a process review is an observation of the process in action.

In any observation of how work is performed, what a subject matter expert says is done and what observers see watching a worker follow a process will point to differences and raise questions. These will, in turn, lead to improvements in the process being observed and potentially to related worker performance improvement.

### Why We Don't Pay Enough Attention

No discussion of death-by-process is complete without a look at why even the most experienced and successful business process professionals can overlook a potentially fatal flaw in a process. A few of our observations:

- If the process designers, their clients, and the end users have not experienced any catastrophic events related to similar processes, it will be a challenge to design to avoid them
- Familiarity does not necessarily breed contempt, but it often breeds complaisance: when a regularly used process becomes completely familiar, the user becomes potentially dangerous
- Long-used processes are like wallpaper—over time, we don't notice them much—and this is exactly the time to revisit them to observe and provide users with feedback
- Process users may be intimidated by authority and fail to raise questions – give them permission to question any part of a process at any time

### Summary

A process can be lethal to people, to business relationships, to product and service success. To ensure that a process of yours does not kill anyone or anything, consider some examples from well-known industries like these: construction, aviation, and medicine. Then, revisit the life cycle of a process to re-connect with the basics of good design, development, implementation, evaluation, and review. Above all, avoid process complaisance and make yourself into a process observation expert.

As we go to press, we are following events in Flint, Michigan, where, to save money, the state government changed the city's water supply from healthy Lake Huron water to lead-polluted toxic water from the Flint River. The effects of lead poisoning are immediate, severe, permanent, and can be lethal in children. The process by which the Governor was able to authorize this change is lethal. His ability, and that of the many agencies and officials involved, to return to Lake Huron water for Flint's supply is nearly paralyzed by neglected infrastructure repair/replacement and layers of uncoordinated bureaucratic processes.

What processes have you seen that can kill you?

### References

Addison and Haig. *The checklist: A great equalizer*. Retrieved 1/25/16 from <http://www.bptrends.com/performance-architecture-the-checklist-the-great-equalizer>

Processes: The good, the bad, and the ugly. Retrieved 1/20/16 from <http://www.top-consultant.com/uk/career/appointments.asp?slocation=UK-London-and-South-East>

Smith, Mitch. As Flint Fought to Be Heard, Virginia Tech Team Sounded Alarm\_ [http://www.nytimes.com/2016/02/07/us/as-flint-fought-to-be-heard-virginia-tech-team-sounded-alarm.html?emc=edit\\_th\\_20160207&nl=todaysheadlines&nlid=31297860](http://www.nytimes.com/2016/02/07/us/as-flint-fought-to-be-heard-virginia-tech-team-sounded-alarm.html?emc=edit_th_20160207&nl=todaysheadlines&nlid=31297860)

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