

Highlights

- **What is a disruptive paradigm?**
- **Disruptive paradigms from history**
- **The disruptive paradigm of transparency**
- **Principles of transparency**

Inside

- **Suggestion for root cause instructors**
- **Thought of the month**
- **Quotations of the month**
- **And More**

The Firebird Forum

The Newsletter of
Event Investigation Organizational
Learning Developments
Volume 18 • Number 1
January 2015



A Disruptive Paradigm, Transparency: Should you let it out of the bag?

Disruptive Paradigms

Transparency Disclosure: Reading this may be hazardous to your paradigm.

Disruption can be adverse or beneficial. The value judgment of a disruption often depends on whether one has been helped or hurt by it and usually comes later than the disruption itself. When we use the word “paradigm” we are referring to a way of thinking, a way of perceiving, and/or a way of performing.

A disruptive paradigm is a paradigm that is life-threatening to the old ways of looking at things. Often when a critical mass of people in an organization or in a society adopt the disruptive paradigm the days of the old paradigms are numbered. There is often a tipping point after which the old paradigm recedes and the disruptive paradigm gains momentum.

But more often the disruptive paradigm exists side-by-side with the previously conventional paradigm for years. And this co-existence is antagonistic.

Usually the disruptive paradigm is simple and straightforward. Usually the elements of the disruptive paradigm had been available, but had just not been combined in the disruptive package. Usually many people are baffled and outraged by the disruptive paradigm when they first contact it.

Often there is great resistance to the disruptive paradigm. Advocates of the disruptive paradigm are treated as heretics and as threats to stability, which they are, most certainly. Often the initial advocates are bullied, ostracized, shunned, blacklisted, persecuted, ridiculed, mocked, or rejected.

But the disruptive paradigm seems to be self-powered. The few people who grasp it transform themselves. To them it is a blinding flash of the obvious.

Those few early graspers have the effect of transforming their environment. They are like a virus that both infects all exposed individuals and perpetuates itself. When a tipping point is reached the transformation gets closer to complete. Sometimes the transformation is for the better.

As Machiavelli noted during the Renaissance on Page 24 of "[The Prince](#)"¹, resistance to the new disruptive paradigm comes from those who perceive themselves as benefiting from the previous paradigm. Sometimes they perceive that those benefits are a God-given right or a Constitutionally-protected right. Their moral outrage frequently has a long half-life. It appears obstinately wrong-headed to those who have taken on the new paradigm.

What are the disruptive paradigms of history?

Many disruptive paradigms of the past still evoke strong emotion today. Here we mention a few disruptive paradigms that define the term by example. Readers are invited to reflect on their own examples.

The American Declaration of Independence advanced the disruptive paradigm of the rights to life, liberty, and the pursuit of happiness. This paradigm captured the essence of a new way of looking at government that resulted immediately in about five years of war, which thoroughly disrupted colonial rule. But this paradigm coexisted with the paradigm of involuntary servitude for a century or so.

Certainly the paradigm of non-violent civil disobedience promoted by Mohandas K. Gandhi disrupted British control of India. Some say that the paradigm of non-violence came from Thoreau's earlier paradigm of civil disobedience, which proved disruptive in our memories as well in pre-Civil War New England.

The paradigm of the right to translate the Bible into the vernacular disrupted church activity and resulted in the even more disruptive paradigm of the right to individual interpretation of the Bible. Disruptive social paradigms include separation of church and state, taxation-representation, freedom of the press, environmental protection, endangered species, one-person-one-vote, racial equality, gender equality, the right to physical access by the disabled, the right to reproductive control, equality of sexual orientation, and many more.

All of the evidence for the paradigm of evolution had been common knowledge among natural scientists for decades before Darwin and his contemporaries effectively articulated it. Although it is useful in many human endeavors it is still not universally accepted.

Disruptive business paradigms include collective bargaining, deregulation of airlines, deregulation of long distance telephone service, deregulation of electric power generation, the right to a safe work place, truth in advertising, management by objectives (MBO), Zero Based Budgeting, Activity Value Analysis, Business Process Re-engineering, "Lean", and the like.

Disruptive art paradigms include optical perspective, oil paints, impressionism, the symphony, jazz, modern dance, cinema, and 'rock and roll.'

¹ <http://www.constitution.org/mac/prince.pdf>

Government actions that have imposed disruptive paradigms include the False Claims Act, the Racketeer Influenced and Corrupt Organizations Act (RICO), the Foreign Corrupt Practices Act, the racial integration of the military, “Don’t Ask—Don’t Tell”, the Freedom of Information Act, and possibly the Sarbanes-Oxley Act.

Of course, all disruptive paradigms bring opportunities for those who get on the train. But many chose to stay at the train station. Some prudently; some imprudently.

Yes, but what is the call for another disruptive paradigm?

Today’s paradigm is potentially very disruptive. It is not new.

All too fresh in our memories are disasters, debacles, and fiascos that could have been prevented or made less consequential by non-heroic timelier actions on the part of management, organization members, or regulators to notice dysfunctional conditions, behaviors, actions, and inactions before they resulted in severe harm.

These events span the spectrum of organizational activity. Every one of them was caused, in part, by the failure to identify harmful and dysfunctional conditions, behaviors, actions, and inactions sooner. Many of these events are acknowledged to have changed the way business was done.

(If an event is not familiar to you, an Internet search will give you the basics. Most of these events are captured in Wikipedia. Some links are provided later in this article.)

In no particular order, the relevant events include:

The Sinking of SS Sultana

The Sinking of RMS Titanic

The Sinking of USS Thresher (SSN 593)

The Watergate Break-in and Cover-up

The Savings and Loan Episode and Bailout

The Grounding of the Cruise Ship *Royal Majesty*

The Grounding of the Cruise Ship *Costa Concordia*

The Windscale Fire 1957

The SL-1 Supercriticality Accident

The Sellafield Pipe Break

The Accident at Three Mile Island

The 1975 Fire at the Browns Ferry Nuclear Plant

THE FIREBIRD FORUM JANUARY 2015

The Davis-Besse 2002 Near Miss Loss of Coolant Accident

The Millstone Nuclear Plant Extended Regulatory Shutdown

The 2003 Northeast Blackout

The Exxon Valdez Grounding

The Piper Alpha Fire

The BP Texas City Explosion and Fire

The BP Deepwater Horizon Macondo Blowout

The 1977 Tenerife Crash of Two Boeing 747 Airliners

The Crash of ValuJet Flight 592

The Singapore Airlines Flight 006 Wrong Runway Crash in Taipei

The Concorde Supersonic Transport Crash

The Bhopal Accident

The Chernobyl Accident

The Apollo XIII Casualty

Challenger Accident

Columbia Accident

Various Clergy Sexual Abuse Occurrences

The USS Iowa (BB 61) Explosion and Cover-up

The *USS Vincennes* (CG 49) Mix-up Attack on Airliner

The *USS Greeneville* (SSN 772) Sinking of Research Vessel *Ehime Maru*

The *USS Miami* (SSN 755) Fire While in Drydock 2012

The Groundings of Destroyer Squadron 11 on Honda Point

The Rodney King LAPD Suspect Abuse

The Abner Louima NYPD Prisoner Abuse

U.S. Military Prisoner Abuse at Abu Ghraib

THE FIREBIRD FORUM JANUARY 2015

The *USS Forrestal* (CVA 59) Flight Deck Fire

The *USS Iwo Jima* (LPH 2) Fatal Steam Valve Accident 1990

The Environmental Crimes Revealed by the FBI and EPA Raid on Rocky Flats

The Kansas City Hyatt Regency Skywalk Collapse 1981

The Terrorist Attacks of September 11, 2001

The Enron Financial Failure

The Arthur Andersen Collapse

The 1999 Texas A&M Fatal Bonfire Collapse

The Bernie Madoff Financial Scandal

The Subprime Mortgage Derivative meltdown

The Station Blackout at the Vogtle Nuclear Plant

The Diver Near Miss Fatal Irradiation at Calvert Cliffs

The Destructive Turbine Overspeed at Salem Unit 2

The Trip Breaker Malfunctions at Salem Unit 2

The River Grass Forced Shutdown at Salem Unit 2

The Reactor Heat Removal (RHR) Valve Failure at Browns Ferry

The Tokaimura Prompt Criticality 1999

The Duane Arnold Condenser Tube Failure Chemistry Excursion

The U. S. Nuclear Plant Groundwater Radioactive Contamination Epidemic

The Containment-related Decommissioning of Crystal River Unit 3

The Steam Generator Replacement-related Decommissioning of San Onofre Units 2 and 3

The Fatal Stator Drop at Arkansas Nuclear One

The Xcel Energy Fatal Cabin Creek Fire

The Department of Veterans Affairs Wait Time Cover-up

The Affordable Care Act Web Site Rollout Fiasco

The Interstate 35 Mississippi River Bridge Collapse

THE FIREBIRD FORUM JANUARY 2015

The Interstate 95 Mianus River Bridge Collapse

The US Route 35 Silver Bridge Collapse

The Kingston TVA Ash Spill 2008

The Oak Ridge Y-12 Plant Intrusion of the Ancient Nun

The Waste Isolation Pilot Plant (WIPP) Underground Fire

The Waste Isolation Pilot Plant (WIPP) Radioactivity Release Change Management Debacle

The White House Secret Service Blunders of 2014

The Naval Nuclear Power School Cheating Scandal of 2014

The University of North Carolina Academic Integrity Scandal of 2014

The Pennsylvania State University Pedophilia Scandal

The Center for Disease Control (CDC) Anthrax Mix-up

The Center for Disease Control (CDC) Ebola Mix-up

The Takata/ Honda/ Chrysler/ Etc. Air Bag Fatalities and Recall

The GM Ignition Switch Fatalities and Recall

The Ford Explorer Bridgestone/Firestone Tire Fatalities and Recall 2000

Jensen Farms Cantaloupe Fatalities 2011-2012

(Please line out the items you disagree with and add the ones you think I left out.)

What do all of these incidents have in common?

They all could most likely have been prevented and/or made less consequential by identifying some or all of the harmful conditions, behaviors, actions, and inactions before the event got out of hand. There were avoidable unnecessary blind spots.

It was not sufficiently easy to see what was wrong. It was too difficult to see what was going on. The accident waiting to happen was left waiting too long.

Thus, today's disruptive paradigm is transparency.

All of these events could most likely have been averted had certain conditions, behaviors, actions, or inactions been observable at an earlier stage. An interesting exercise would be to go through the list of events and, just from memory, state how better transparency would have helped. What were the blind spots and what would have moved them into the field of vision?

Most, if not all, of these events can legitimately be attributed to insufficient transparency. Better transparency would have averted them.

Was the non-transparency systemic? Cultural? Deliberate? Merely ignorant?

What is the disruptive paradigm of transparency?

We define transparency in the context of organizational culture.

Transparency is doing activities in such a way that it is easy to tell what's wrong and/or hazardous.

Transparency is making it easy to answer the question, "What's wrong with this picture?"

Transparency also refers to a **condition** in which it is easy to tell what's wrong and what's hazardous.

Transparency is a measure to assure that adverse conditions are promptly identified so that they can be corrected.

Transparency is a barrier that protects certain vulnerable items from the harm of the continued unattended existence of harmful conditions, behaviors, actions, and/or inactions.

Transparency is one of the mistake proofing (aka *Poka Yoke*) strategies. It is a subset of measures for achieving first try quality.

High performance organizations are high transparency organizations.

A contrary of transparency is opacity, doing activities in such a way that it is difficult to determine what's wrong.

Opacity is making it hard or allowing it to be hard to answer the question, "What's wrong with this picture?"

Another contrary of transparency is invisibility; another way of doing activities in such a way that what's wrong or hazardous cannot be easily seen. Examples include viruses, high voltage, radiation, and rapidly rotating propellers.

An opposite of transparency is counter-transparency. Counter-transparency is doing activities in such a way that the wrong is easily mistaken for the right.

The power operated relief valve indication at Three Mile Island was counter-transparent in that it indicated shut while the valve was open.

Examples of Opacity

An example of opacity is having tank content indications in feet and inches, but flow meter indicators in gallons per minute. This makes it hard to tell when the change in tank contents does not match what was intended to be added to the tank.

THE FIREBIRD FORUM JANUARY 2015

Another example of opacity is to require operators or technicians to do calculations in their heads. It is much easier to recognize a calculation error when the calculation is written down.

Another example of opacity is the familiar “circle the wagons” response of organizations to outside criticism. Frequently circling the wagons just keeps the lid on the pressure cooker so that the explosion occurs at a higher pressure. This is certainly the case with Davis-Besse, Millstone, the USS Iowa cover-up, the California energy trading scandals, the mutual fund trading abuses, and some of the sexual abuse scandals.

A dirty site glass is both literally and figuratively opaque.

Other familiar items that tend to work against transparency (see definition above) by involving opacity, invisibility, and/or counter-transparency include:

- Regulatory agency internal red tape and official gobbledygook
- Minimalistic log and record keeping
- Minimalistic hand-offs and turnovers
- Informal due diligence, hand-offs, and turnovers
- Poor lighting
- Poor visibility (fog, darkness, snow cover, dust...)
- Noise
- Vibration
- Working by memory
- Head calculations (mental calculations)
- Knowledge-based performance
- Fatigue
- Cognitive impairment, e.g., drugs, alcohol, stress, sleep deprivation, circadian rhythm disruption...
- Mission Focus (aka “Summit Fever”, “Smelling Steam”, “Wife-on-the-pier”, etc)
- Schedule pressure
- First time performance
- Unfamiliarity with task or technology
- Excessive familiarity with task or technology
- GroupThink
- Lack of training in transparency and/or hazard recognition
- Previous punishment for problem reporting
- Previous punishment for transparency
- Vision blocking devices, e.g., tags, dirty windows, papered over windows
- Word-of-mouth orders not backed-up in writing
- Basing decisions on “Engineering Judgment” without stated bases.
- Inscrutable management decisions and announcements.
- Chilling Effects
- Cognitive Dissonance Reduction
- Sensory Fatigue (e.g., olfactory fatigue)
- Alarm Fatigue (e.g., false alarms)
- Normalization of deviance

Examples of Transparency

A common example of transparency is the printed itemized supermarket receipt for purchases. It is presented in such a way that it is easy for a knowledgeable customer to detect pricing errors, as my family members often do.

Another example of transparency is the “recorded calculation” of engineering. The recorded calculation is presented in a format that makes it easy for a supervising engineer to tell what is wrong with the calculation. This also and perhaps more importantly, makes it easy for the engineers themselves to tell what is wrong.

Other familiar transparency devices and transparency enhancing devices (see definition above) include:

- See-through produce containers
- Itemized invoices
- Itemized receipts
- Posted per unit pricing
- Citations of sources and evidence
- Automatic indication of bypass and inoperable status
- Aircraft transponders as used by air traffic control
- Radar detectors as used by speeders
- Passenger air bag off indicator
- Antilock Brake System trouble indicator
- When disassembling a device arrange the components in a logical order to promote transparency during reassembly
- Interior office windows
- Weld radiography
- Dye penetrant testing
- Eddy current testing
- Other non-destructive testing
- Medical imaging (X-ray, echocardiogram, MRI, etc.)
- Security video surveillance
- Videographed interrogations
- Videographed pre-job briefs
- Video proctoring/ surveillance of test/examination rooms
- Around the corner viewing convex mirrors
- Methyl mercaptan added to natural gas to make leaks transparent
- Rear view mirrors
- Windshield wipers
- Colored tire tread depth indicators
- Brake pad wear indicators
- Distinctive green nozzle for diesel fuel
- Distinctive color for fire hydrants
- Hull Opening Indicator Panel (“Straight Board” or “Green Board”)
- Shadow board (for indicating missing items)
- Key hook board (for indicating missing keys)
- Seat belt unbuckled lights and chimes on cars
- Design for Inspectability
- Checklists

THE FIREBIRD FORUM JANUARY 2015

- Clear accountabilities
- Job descriptions
- Teamwork
- Self-checking
- Peer checking
- Phonetic alphabet
- Glossary
- Qualitative and quantitative acceptance criteria
- Pre-task readiness reviews (by any name)
- Self-narration
- Stop-Think-Act-Review
- Plan-Do-Monitor-Adjust
- [Say what you do; do what you say, prove it; improve it](#)²
- Post-work documentation review
- Post-work testing
- Differential pressure devices on filters and strainers
- Annunciator alarms
- Calculation forms
- “Disclosure” requirements
- Traceability requirements
- Shop “travelers”
- Walkdowns
- Job Hazard Analyses
- Failure Modes and Effects Analyses
- Factor Trees (used in event investigation reports)
- Web access to government files
- Meetings open to the public
- Indications of changes in documents
- An appendix to a document or another section explaining the motivations for changes
- Adding an odor agent to odorless gases to aid in leak detection
- “Dead Load Testing” of new/ changed structures before human use.
- Reconciliation of accounts, e.g., inventories, checking accounts
- Periodic mass balance reconciliation of fluid transfers
- Project Management Tools: Work Breakdown Structure, Planning Logic Network, Gantt Chart...
- Event Investigation Tools: Comparative TimeLine, Factor Tree, Narrative, Missed Opportunity Matrix...
- Live-dead-live Electrical Testing
- Vent whistles on home heating oil storage tanks
- Strobe lights on vehicles
- Strobe lights for observation of rotating items
- Oscilloscopes
- **Bolding** and **highlighting** of abnormal results in medical test reports and other reports
- Job rotation with due diligence
- Formalized, documented turnovers, hand-offs, acceptance acknowledgments, and the like

² https://app.box.com/files/0/f/37734740/1/f_5192006852

What ideas go along with the disruptive paradigm of transparency?

- What one knows will be revealed deters behavior that one might like to have concealed.
- Transparency reveals shortfalls in competency, integrity, and compliance.
- Prolonged opacity supports problem proliferation and growth.
- Every system is perfectly designed to produce that which it, in fact, produced.
- Every system that does not contain provisions for its own assessment will collapse.
- The consequences of adverse events are the natural and inevitable results of the way business is done.
- The purpose of an assessment, inspection, or test is to find out what's wrong; not to show that everything is alright.
- The existing problems that are not corrected in conjunction with an assessment, inspection, or test are endorsed by them.
- In an organization with limited resources, there are no neutral (indifferent) conditions, behaviors, actions, or inactions.. Every condition, behavior, action, and inaction is either functional (It supports the organizational mission.) or it is dysfunctional (It detracts from the organizational mission.).
- Dysfunctional conditions, behaviors, actions, and inactions in an organization are the way they are because management wants them that way, or because management tolerates them that way, or because management is oblivious to them, or, in rare cases, because correction of the dysfunctionality is in progress, but not complete.
- Dysfunctional conditions, behaviors, actions, and inactions in an organization are not isolated, but are fair samples of the programs and processes.
- Dysfunctional conditions, behaviors, actions, and inactions in an organization, if not acted upon promptly, transparently, and effectively, become part of the culture, i.e., the way things are around here.
- Insane behavior includes taking risk in excess of that for which there is an identified potential benefit.
- Insane behavior includes doing the same thing, but expecting different results in the absence of good reason for that expectation.
- Chronic dysfunctional conditions, behaviors, actions, and inactions are parasites that damage the host organization until they are removed or until the host organization succumbs to them.
- The longer dysfunctional conditions, behaviors, actions, and inactions are allowed to exist the more they are perceived to be normal and acceptable.

- Bad news does not improve with age.
- Organizations that keep their cards close to the vest are often ignorant of what is in their hands.
- Transparency is the mortal enemy of corruption.
- Opacity is the co-conspirator of corruption.
- Opacity blocks improvement.

What are some of the principles of the disruptive paradigm of transparency?

- Flow Down: Since the knowledge of what's right is a prerequisite for identifying what is wrong, requirements are flowed down to where they apply.
- Transparency: Every member of the organization does activities in such a way that other members can tell what is wrong and/or hazardous. That way the members will be better able to see their own problems first.
- Leadership Transparency: The only effective way to achieve organizational transparency is to display personal transparency.
- Consistency: No person, group, activity, program, or process is unnecessarily exempted from transparency.
- Integrity: Transparency is the foundation of integrity. Those who have integrity want transparency.
- Accountability: People stand ready to give an account of that for which they are accountable. They do not need to "be held accountable" by others because they act accountably.
- Unique Accountability: In a transparent organization there is a single individual who is accountable for each result that matters and that individual is known to those who contribute to the result and to those who depend on that result.
- 200% Accountability at the Interfaces: Every provider is 100% accountable for the quality of that which is provided. Every user is 100% accountable for that which is accepted.
- Organizational Intolerance of Dysfunctionality: Conditions, behaviors, actions, and inactions that are known to detract from the mission of the organization are not tolerated.
- Exclusion of non-action: When dysfunctional conditions, behaviors, actions, or inactions are identified they are permanently corrected or they get immediate interim compensatory measures.
- Issue Identification: Measures are established to assure that dysfunctional conditions, behaviors, actions, and inactions are promptly identified.

THE FIREBIRD FORUM JANUARY 2015

- Issue Understanding: The factors resulting in dysfunctional conditions, behaviors, actions, and inactions are identified and corrected.
- Dysfunctional Upstream Performance : All internal users are required to report dysfunctional upstream performance, i.e., users notify providers when what is provided can have an adverse effect on safety, productivity, and/or regulatory compliance. Dysfunctional upstream performance is considered a legitimate subject for grievance.
- Costs of Dysfunctional Upstream Performance: Users are provided with methods to report and track the cost impact of dysfunctional upstream performance in the user's area. "Secret" rework is revealed.
- Problem Distance: When dysfunctional upstream performance is detected all of the upstream activities between the activity that originated the problem and the activity that surfaced the problem are considered for correction.
- Probable Opacity: Whenever a problem is discovered at any process step other than the one in which it originated, the originating step and all intervening steps are probably opaque. They are made transparent.
- Oversight Accountability: Oversight activities that did not detect the problem are considered as upstream activities. Previous Root Cause Analysis³ (RCA) is considered to be oversight.
- Root Cause Analysis (RCA): The purposes of RCA are to improve user accountability and transparency, to improve provider accountability and transparency, to improve oversight accountability and transparency, to improve compliance with requirements, and to improve RCA itself, including its transparency.
- Corrective Action Scope: Corrective Actions are to fix the problems, to fix the processes that originated the problems, and to fix the processes that should have, but didn't, surface the problems.
- Insubordination: Deliberately hiding a dysfunctional condition, behavior, action, or inaction is a form of insubordination because organization members have been told to surface them.
- Not noticing dysfunctional conditions, behaviors, actions, and inactions: Not noticing dysfunctional conditions, behaviors, actions, and inactions is considered to be a form of incompetence because the identification of dysfunctional conditions, behaviors, actions, and inactions is a requirement of every position description.
- Training and Experience: Training and experience will increase the transparency of situations until the transparency is saturated by habituation, acclimatization, and desensitization.
- Limiting Weaknesses: All dysfunctional conditions, behaviors, actions, and inactions are not created equal. Attention to the less limiting weaknesses detracts from the more limiting ones and is hence dysfunctional.

³ Root Cause Analysis refers to a systematic method for understanding the conditions, behaviors, actions, and inactions that resulted in harm.

THE FIREBIRD FORUM JANUARY 2015

- Leverage: Making a process more transparent is likely to have more impact on output quality than other improvements costing about the same amount.
- Performance Indicators: Performance Indicators are designed to be transparent and to indicate where transparency has not been achieved.
- Gamed Performance Indicators: The transparency of performance indicators includes measures to reveal deliberate gaming as well as unintended gaming.

What are some of the problems of the disruptive paradigm of transparency?

- Asymmetric Transparency: There are situations in which transparency is different for different affected parties. Often this involves ethics.
- Natural Transparency: It looks like transparency is not usually natural. Opacity is more natural than transparency. If an activity is to be transparent it must be made to be transparent.
- Trust: Trusting individuals and organizations tend to demand less transparency and show up as victims of individuals and organizations that lack transparency, competence, compliance, and/or integrity.
- Culture: There seems to be a natural congruency gap between the culture of transparency and the culture of trust. But high performance organizations often strive for both the culture of transparency and the culture of trust.
- Frustration: Some industries, associations, and agencies want public trust without providing transparency. When the ship hits the sand the public wonders what else has been concealed. The nontransparent entity truly does not know because of its nontransparency.
- Chilling Effects: There are chilling effects that suppress transparency and the reporting of lacks of transparency. These include loyalties to persons, loyalties to organizations, loyalties to groups, performance incentives, and performance indicators.
- Good Opacity: Some portions of some activities and conditions should not be transparent. It is important to keep these opaque, but it is also important not to use requirements for good opacity to justify unnecessary opacity.
- Event Investigation (Root Cause Analysis): Transparency is generally under applied in event investigations both as an attribute of the analysis output and as a line of inquiry.
- Redundancy (Defense in Depth): Most of the events preventable by better transparency would also have been prevented by competence, integrity, and/or compliance.

What are some of the “famous last words” of Nontransparent (Opaque and Counter-transparent) Organizations?

- We are fixing what we have the budget to fix. More transparency would bust the budget.
- We are no worse than others. If we are more transparent we will be at a disadvantage.
- If people were told how we do business they would be unnecessarily upset.
- We have to hide our members’ errors from the public so we can be transparent among our members.
- Why should I make it easy for the auditor (or regulator) to tell what my non-compliances are?
- No one is truly able to be self-critical so why should I try to find my own problems?
- If management had wanted me to find my own problems they would have staffed my organization to do it.
- If the regulator hasn’t complained, I must be in compliance.
- It’s not a safety issue. It is merely a regulatory issue.
- You’re being paid to solve problems, not to find problems.
- Don’t bring me a problem until you have the solution to bring with it.
- No harm. No foul.

The Blind-sided Organization’s Hindsight Questions

- What is it about the way we do business that kept us from seeing that this harmful occurrence would happen?
- What were the earlier, better, cheaper, safer, more compliant... ways that the harmful factors of this harmful occurrence could have been revealed by better transparency.
- What are the chilling effects that feed the opponents of transparency?

Potential Transparency Disconnects for Your Reflection

What is wrong with the transparency picture?

- The absence of the word “transparency” from “Safety Culture” policies and guidelines?
- The use of and frequency of appearance of the word “transparency” in government oversight agencies’ web-based document files?
- The frequency of appearance of the word “transparency” in safety training programs?
- The low frequency of appearance of the word “transparency” in event investigation reports?

THE FIREBIRD FORUM JANUARY 2015

- Generic titles for documents
- Long delays in the web posting of reports
- Using “due process” to conceal issues
- Using “proprietary information” or the like to avoid embarrassment
- Using “security information” or the like to avoid embarrassment
- Using gobbledygook and boiler plate to obfuscate issues
- Using undefined terms of art that are not plain English

What you can do cost-effectively to promote transparency.

- When something adverse happens in your organization ask, “What is it about the way we do business that kept us from seeing that this would happen?”
- Keep track of the costs of insufficient transparency.
- Promote “insufficient transparency” as a line of inquiry in event investigations.
- When a “root cause” is identified ask about how better transparency could have prevented the harm and/or the event.
- When an oversight process identifies a long existing issue ask about how better transparency could have resulted in earlier, better, cheaper, safer manifestation of it.
- Ask if “transparency” should be a core value of your organization.
- Promote transparency as a meta-paradigm that can be used to make your other paradigms more transparent.
- Incorporate transparency assessments in change management (management of change) requirements.
- Incorporate transparency in the Failure Modes and Effects (FMEA) process.
- Have internal auditing/oversight organizations do dedicated transparency audits/ assessments.
- Include transparency in responses to notices of violation, corrective action requests, customer complaints, and other external indications of insufficient internal transparency.

Partial Transparency Glossary

Term	Meaning	Notes
Counter-transparency (Trait)	Counter-transparency is doing activities in such a way that the wrong is easily mistaken for the right.	Many fatal mix-up events involve counter-transparency.
Counter-transparent (Condition)	A condition is counter-transparent when wrong is easily mistaken for right.	This can happen when different things look the same.
Invisible (Non-visible)	An invisible item cannot be seen.	Viruses are invisible to the naked eye.
Nontransparency (Trait)	Nontransparency is doing activities in ways that are other than transparent.	Nontransparency includes counter-transparency, opacity, invisibility, and the like.
Nontransparent (Condition)	A condition is nontransparent when it is other than transparent.	Nontransparent includes invisible, opaque, and counter-transparent.
Opacity (Trait)	Opacity is doing activities in such a way that it is difficult or impossible to tell what's wrong and/or hazardous.	Opacity is a strategy of embezzlers, inside traders, forgers, and counterfeiters. Preconditioning is the nuclear power industry's contribution to opacity.
Opaque (Condition)	A condition is opaque when it is difficult or impossible to tell what's wrong and/or hazardous.	
Transparency (Trait)	Transparency is doing activities in such a way that it is easy to tell what's wrong and/or hazardous.	
Transparent (Condition)	A condition is transparent when it is easy to tell what's wrong and/or hazardous.	
Visible	Visible items can be seen. More generally items that can be sensed are sometimes referred to as visible.	

Some links for transparency.

Presidential Memorandum:

http://www.whitehouse.gov/the_press_office/TransparencyandOpenGovernment

Definition: Transparency:

http://en.wikipedia.org/wiki/Transparency_%28behavior%29

Study Group:

https://groups.yahoo.com/neo/groups/RCSOTP_18_Transparency/info

Example: Nontransparent Speed Bump Dumps Officer-One minute video with instant reply

<http://youtu.be/xGUsc-rj2V4>

Example: Silver Bridge

https://en.wikipedia.org/wiki/Silver_Bridge#Wreckage_analysis

Example: Xcel Energy Fatal Cabin Creek Fire-16 minute video

<http://youtu.be/BeaX0IRjyd8>

Example: The Ninja Nun and the Negligent Nukes

<http://www.washingtonpost.com/sf/wp-style/2013/09/13/the-prophets-of-oak-ridge/>

Example: Texas A&M Bonfire Collapse 1999

http://www.americanscientist.org/libraries/documents/200577101450_306.pdf

<https://www.usfa.fema.gov/downloads/pdf/publications/tr-133.pdf>

Example: Tokaimura Prompt Supercriticality 1999-Partial Replay of Chernobyl?

<https://app.box.com/s/ae61idu3kybmrjy0f3p>

Example: Veteran's Affairs Culture of Non-transparency

<http://nyti.ms/1CJyPhO>

Example: CDC Repeat Pathogen Release

http://www.washingtonpost.com/national/health-science/cdc-reports-potential-ebola-exposure-in-atlanta-lab/2014/12/24/f1a9f26c-8b8e-11e4-8ff4-fb93129c9c8b_story.html

Example: Independent Third Party Can't See Problems

<http://www.foodsafetynews.com/2014/07/auditor-of-farm-behind-cantaloupe-outbreak-approved-shipper-in-trader-joes-outbreak/#.VJ16HBHU8>

Example: Nuclear Power Bypass Indication Requirements

<http://pbadupws.nrc.gov/docs/ML0821/ML082140114.pdf>

Example: Undetected Loss of Alarm Warning Devices at Nuclear Plants NRC Information Notice 93-047

<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/info-notices/1993/in93047.html>

Example: Counter-transparency: NRC Information Notice 97-016

<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/info-notices/1997/in97016.html>

Example: Many NRC Post-TMI Requirements Involve Transparency NUREG-0737
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0737/final/sr0737.pdf>

Example: Data Tampering Goes on for Years (The comments by readers are revealing.)
<http://www.canberratimes.com.au/act-news/revealed-how-data-tamperer-confessed-20130313-2g19m.html>

Example of Transparency in Re-enactment: Destroyer Slices Itself with Aircraft Carrier
<http://youtu.be/Qb7f6c5BcK4>

Example: Fatal Lack of Transparency: Parts Mix-up Aboard USS Iwo Jima (LPH 2) 1990
<http://www.jag.navy.mil/library/investigations/IWO%20JIMA%2090.pdf>

Example: Lack of Transparency Results in Bearings Reversed in Nuclear Plant 2011
<http://pbadupws.nrc.gov/docs/ML1232/ML12325A057.pdf>

Example: USS Miami (SSN 755) Fire While in Drydock 2012
<http://www.navsea.navy.mil/FOIA%20Reading%20Room/201411130821.pdf>

Example: Kingston TVA Ash Spill 2008
<http://web.knoxnews.com/pdf/072809tva-inspectorgeneralreport.pdf>

Example: Prolonged Opacity Supports Secret Service Problem Proliferation and Growth
http://www.washingtonpost.com/politics/critical-decisions-after-911-led-to-slow-steady-decline-in-quality-for-secret-service/2014/12/27/48fa3cd6-7f3a-11e4-81fd-8c4814dfa9d7_story.html?hpid=z1

Nuclear Power Transparency: Fukushima Discussion (The Economist)
http://www.economist.com/node/18395981?Story_ID=18395981

Nuclear Power Transparency: The Hidden Flaws Make up the Cause
<http://www.neimagazine.com/features/featurelooking-beyond-the-operator-4447549/>

Dissenting Professional Opinion: A Case Against Transparency: The Transparency Trap (Harvard Business Review)
<https://hbr.org/2014/10/the-transparency-trap/ar/1>

Dissenting Professional Opinion: A Case for Private/Secret Transparency: INPO
<http://www.amacad.org/pdfs/lessonsLearned.pdf>

Natural Transparency: For a philosophical view see Page 102
<https://books.google.com/books?id=j8yhAgAAQBAJ&pg=PA105&lpg=PA105&dq=%22Natural+Transparency%22+problem&source=bl&ots=4-NNAM5wVq&sig=5soIY0GweUHQwfAm4DA8YteJJw8&hl=en&sa=X&ei=mlmgVPj3EYaiyQTH1oGQCQ&ved=0CGQQ6AEwCQ#v=onepage&q=%22Natural%20Transparency%22%20problem&f=false>

Acknowledgments

In the interest of transparency and full disclosure, I send many thanks to the numerous Firebird Forum subscribers, LinkedIn Group colleagues, and Yahoo Group colleagues who pointed out enhancements, errors and omissions in previous work on transparency. Special thanks to John Corcoran, Charley Cortazzo, C. Baucom, Bob Crittenden, Steve Prevette, Dana Sturgis, Geoff, Warnock, and Ben Whitmer.

Dissenting Professional Opinions (DPO's)

A dialogue on disruptive paradigms, generally, and on this disruptive paradigm in particular may result in improved understanding.

Please send DPO's to William.R.Corcoran@1959.USNA.com along with either a statement that they are to be considered private or a statement that they may be publicly addressed.

Also, you may join the group building a body of knowledge on transparency by sending an e-mail to RCSOTP_18_Transparency-subscribe@yahoogleroups.com

Suggestions for root cause analysis instructors

Discuss disruptive paradigms.

What disruptive paradigms have affected your facility?

What were the impacts of those disruptive paradigms? (Answer this yourself before you try it on the trainees.)

Then ask your trainees to discuss the benefits and disadvantages of using root cause analysis to identify the following as types of harmful factors to be addressed:

1. Insufficient transparency
2. Self-assessment deficiencies,
3. Independent assessment deficiencies,
4. Root cause analysis deficiencies, and
5. Corrective action program deficiencies.

Ask your trainees to explain under what circumstances, if any, the above types of harmful factors could be "root causes."

Thought of the Month

The harmful factors of every adverse event to date have included insufficient transparency.-Bill Corcoran

Quotations of the Month

The easiest, quickest, cheapest way to improve quality is to make it transparent.
To promote poor quality make it easy to cover up quality problems.
-Bill Corcoran

The easiest, quickest, cheapest way to improve safety is to make safety problems transparent.
To promote poor safety make it easy to cover up safety problems.
-Bill Corcoran

Sponsorship of “The Firebird Forum”

Editor: William R. Corcoran, Ph.D., P.E.
21 Broadleaf Circle
Windsor, CT 06095-1634
Tel: 860-285-8779
e-mail: firebird.one@alum.MIT.edu

Saving lives, assets, pain, and careers through thoughtful inquiry.

Copyright Notice: *The Firebird Forum* is copyright in the year of publication by W. R. Corcoran All rights reserved. It may be freely retransmitted electronically or in hard copy, but may not be incorporated in whole or in part in any other document without permission.

Subscriptions are complimentary: Please send requests by e-mail to
TheFirebirdForum-subscribe@yahoogroups.com

If you would like to unsubscribe you may request that by e-mail to
TheFirebirdForum-unsubscribe@yahoogroups.com .

Back copies through 2003 can be downloaded from the “files” section of the e-group at
[http://groups.yahoo.com/group/Root Cause State of the Practice](http://groups.yahoo.com/group/Root_Cause_State_of_the_Practice) .

Back issues for 2004 and later are in the files section at
http://groups.yahoo.com/group/RCSOTP_02/

Selected back issues are available to non-members at
<https://www.box.com/shared/kfxg1lt9dh>

If the links don't work for you copy the whole URL into the address window of your web browser.

Why do we call it "The Firebird Forum"



Firebird is just the English form of Phoenix, the mythical male bird that lives in the desert, periodically builds a nest, and then sets it afire.

The Phoenix is consumed by the fire it sets, but arises freshly renewed from the ashes. Similarly, organizations often arise renewed from problems that they themselves have created. Thus we get the name, "The Firebird Forum."