



# Information Flow Cultures

*Ron Westrum* , Professor Emeritus  
Eastern Michigan University  
Ypsilanti, MI 48197 U.S.A.



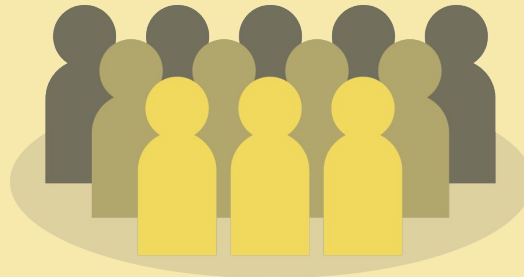
What the devil is  
**Organizational  
Culture?**



# Organizational Culture is

- 1) Practices
- 2) Thoughts
- 3) Feelings
- 4) Symbols


All these are important,  
But let's use another  
index: **The Flow of  
Information**





# Why Information Flow? Because

- 1) Information is the lifeblood of organizations
- 2) Information is also a powerful index of how an organization functions



An information flow culture reflects how managers shape values and behavior





## So, let us describe 3 different flow types

1. **Generative** -- high flow
2. **Bureaucratic** -- medium flow
3. **Pathological** -- low flow



# Pathological Flow

**Low cooperation/high conflict**

**Emphasis on taking care of the leaders**

**Strict boundaries**

**Messengers are shot**

**Low creativity**





In other words:  
**A toxic environment**





# **Bureaucratic Flow**

**Modest Cooperation**

**Emphasis on Rules and Regulation**

**Problems with Silos**

**Messengers are tolerated**

**Conflicts are tamped down**

**Creativity allowed**

# The Spirit of Bureaucratic Flow





# Generative Flow

**High Co-operation**

**Emphasis on the Mission**

**Boundaryless organization**


**Speaking up is encouraged**

**Psychological safety**

**High creativity**

# How Generative Flow Works





So let me emphasize one of these features:  
*Psychological Safety*

The Aristotle project at Google studied what made for an effective team. The number one feature of an effective team was Psychological Safety. This is the ability to speak your mind without fear of punishment. When communication is easy, there is more of it.



But it is also the right kind of communication

I like to say that a high flow of communication has these characteristics:

1. It is timely
2. It is easy to understand
3. It meets the receiver's needs



## A classic example: The bottle of champagne

During the famous Redstone Rocket project (one of NASA's first), a prototype went off course and crashed. Werner von Braun, head of the project, tried to figure out, by many analyses, what had happened. The analyses did not suggest a cause. Now they were going to have to start from scratch to re-design the missile. But then, an engineer came to von Braun, and he said, "I think I did it." 'But how?' von Braun wanted to know.






# The question is answered!

“Well,” said the engineer, “I touched a part of the circuit with a screwdriver and got a spark. I checked, and the circuit seemed to be fine. But maybe that was the problem.” It turned out that was the problem.

Thus the problem was solved, and von Braun sent the engineer a bottle of champagne.

So, what would happen in your organization when an engineer admits to making such a big mistake?



# Generative cultures are often found in high performance organizations

1. They are common in high reliability systems, that require greater cooperation for success.
2. They are often typical of elite military units, whose cooperation is legendary, e.g. the navy Seals
3. They are often seen in consumer and service industries when exceptional consumer satisfaction is the goal
4. They are often led by technological maestros



# Just a word about “technological maestros”

*The word was coined by Arthur Squires in his book [The Tender Ship](#) about technical leadership In WWII. And it meant top leaders had:*

**Technical Virtuosity**

**High Energy Level**

**Ability to grasp the Key Questions**

**Ability to grasp the Key Details**

**High Standards**

**A Hands-On Attitude**



# A maestro: The Citicorp Building

In June 1978, an engineering student called an architect named William LeMessurier, who had designed key parts of the Citicorp building in downtown New York. The 57-floor building had an unusual footprint, and the student wanted to know whether the building was stable or not. Was it going to be stable in a high wind? LeMessurier assured the student that it would be stable, and he personally had designed a special mass damper on the top floor to steady it. But then he had a second thought. And that thought was that, if the building was built according to specifications, there would be no problems. But had it actually been built that way?



# Using “requisite imagination”

So LeMessurier called the builder. Well, the builder said, they had pretty much followed the plans that they had been given. But there was one detail that was different. They had used rivets instead of welds to hold the building together. On a short building this would not matter, but on a 57-story building a quartering wind strong enough would bring down the building. How often did such a wind show up? About every sixteen years turned out to be the answer. So they had to fix it.




# So they fixed it.


They told the newspapers about it, but asked them to hold the story. So, for several months, after the secretaries had gone home at night, contractors pulled off the wall panels, and welded the girders together. After they fixed the structural problem, then the newspapers published what had happened.

Oh, by the way, “requisite imagination?” It is the fine art of anticipating what might go wrong. So here is a prime example of “requisite imagination.”

And remember, “mastering the key details” is one trait of a **maestro**.



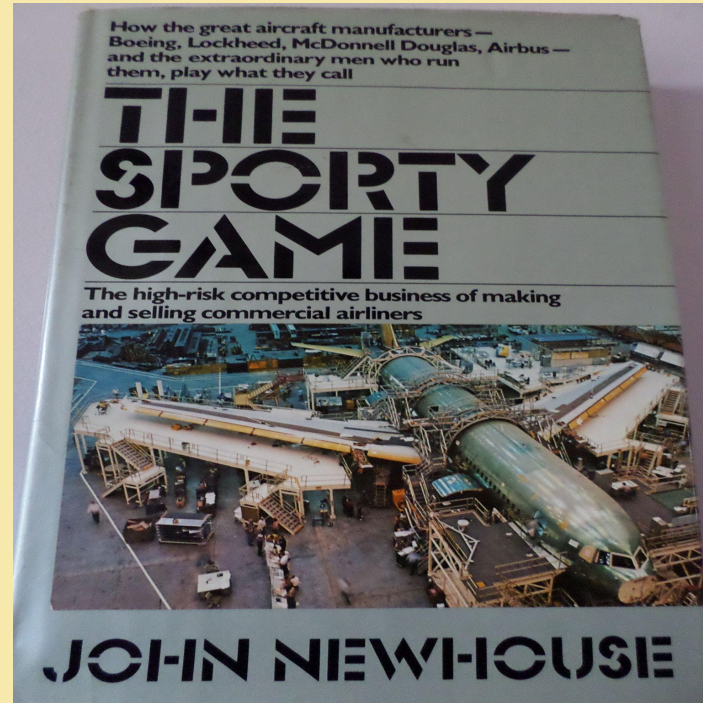
Maestros build Generative  
Information Flow. And this creates  
the complex Web that allows the  
organization to *build things*.



So let's see how this  
works in  
**Creating Airlines  
At Boeing**




# Building Airliners is big business





# **Westrum's Law**

“The Higher the Stakes,  
the rougher the play”




# So, when Boeing builds airliners...

It is rough play, involving very high stakes, and thus high risk. Yet Boeing did it well for many decades


Examples:

<b>Stratoliner</b>	<b>Stratocruiser</b>	<b>707</b>	<b>727</b>	<b>747</b>	<b>777</b>
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**So how did Boeing do  
this?**

Well Boeing had a lot of  
money, a lot of people,  
and a lot of machines



**But Boeing also had a secret weapon:**

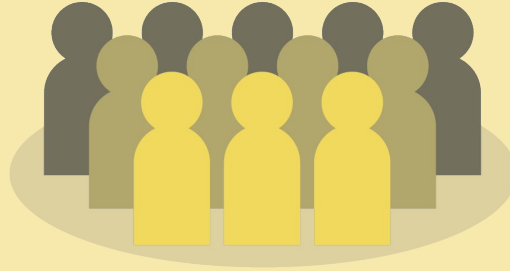
The culture that held all these assets together, a culture, “like a family” ---In spite of crises like business downturns, etc.



Culture is a form of capital.  
Any company that  
manufactures something as  
large and complicated as a jet  
airliner forms a ***complex  
human web*** of knowledge.



Take this  
**Cultural  
Capital**



+

Led by a  
**Technical  
Maestro**


Alan Mulally



And you get planes like the Boeing 777--- A marvel of precise engineering









Understand that this human web of knowledge and competence is fragile and may degrade under rough handling.





So, if you interfere with  
this culture of human  
competence, bad things  
can happen...




And at **Boeing**, this seems to be what happened. After **Boeing** merged with **McDonnell-Douglas** the **merger caused** damage that undercut the web of manufacturing know-how.

# Boeing merges with McDonnell-Douglas


1997

Carl Condit of Boeing  
listens to Harry  
Stonecipher of  
McDonnell-Douglas






And as Boeing's culture  
went out the door, its  
aircraft maestro Alan  
Mulally went to Detroit.



Harry Stonecipher of McDonnell-Douglas soon became the new CEO of Boeing. Under him the culture rapidly declined.

# Stonecipher wanted a New Culture--from “Family” to “Teams”






One employee told Harry Stonecipher:  
“My god, Harry, don’t you know you’re  
changing the culture of Boeing?”

Stonecipher leaped in the air and said, “My  
God, that’s what we want to do!”







That's what Stonecipher did.  
But was it a good idea to do it?  
What culture was being  
replaced? And what would  
take its place?




Suppose that Boeing's  
great accomplishments  
had only been possible  
thanks to its culture.  
What was this culture?




Boeing's employees described it as being like a "family." But this culture was actually a high cooperation generative culture



Yet Stonecipher was not happy with this Boeing culture for making planes. He wanted a culture focused on making money.




So the generative  
culture got replaced  
by a bureaucratic  
culture.



But the former culture had been the key to Boeing's success. So, as the price of Boeing's stock went up, the value of its technical product fell.


***The Dreamliner*** was beautifully designed, but messed up on batteries and other manufacturing issues





Stonecipher, meanwhile, left Boeing in 2005. Other CEOs followed, but success did not return.







Then Boeing made a more serious mistake. It put fatal flaws in a new airliner. The new **737 Max** had major defects.

This airliner had to work. But it didn't.







The 737 Max had a new MCAS software installed that caused unexpected motions. This is a perfect example of a “latent pathogen”




Pilots should have been trained for the new software, but they were not. The full toolkit of the knowledge to operate the plane was not supplied.



One U.S. pilot, after suffering from MCAS problems, said “*I am left to wonder: what else don’t I know? The **Flight Manual** is inadequate and almost criminally insufficient*”




If culture breaks down, things get missed. No maestro and a messed-up culture, you could be flying without a parachute.




# The flaws in the 737 Max soon led to two crashes, killing 345 passengers






A broken culture had  
led to a broken  
airliner project. And  
a huge reputational  
loss.






So, what are the  
lessons we learn  
from this story?



The most obvious one is  
that if you have a working  
culture, don't mess with it!  
And if your culture is not  
working, you better find  
out how you can fix it.

The image features a light yellow background with several overlapping diagonal bands of slightly different shades of yellow. On the left side, there are two prominent parallelogram shapes: a teal one in the foreground and a light green one behind it, both slanted downwards from left to right.

And if you don't know  
whether your culture is  
working or not, shouldn't  
you find out?



**Thank you for  
listening!**