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4 Strategies to Defend Your Building Against COVID-19

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How 11 Days Were Deleted From History

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Don't Wait 10 Days for a Legionella Test

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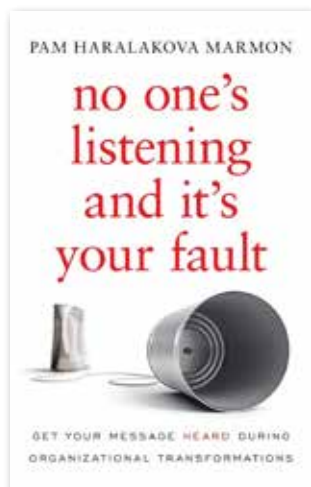
How to Enact Effective Change

Change Can Be Easy

PAM MARMON'S OUTLINE FOR EFFECTIVE POST-PANDEMIC TRANSFORMATION

Pam Marmon understands what it means to adapt. After growing up in Bulgaria, Marmon had to modify her way of living when she emigrated to the U.S. Today, she's a CEO, entrepreneur, wife, and mother who believes that change doesn't have to be difficult. In fact, she's mastered it. Marmon has even established a company, Marmon Consulting, that helps other companies develop strategies for executing transformation.

In Marmon's book, "No One's Listening and It's Your Fault: Get Your Message Heard During Organizational Transformations," she outlines her proven methods for effective communication in any company setting, from a major corporation to a family business. Released on March



24, 2020, Marmon's advice is timely in a period when many business owners are searching for proactive solutions and the next step in finding post-pandemic success. Marmon's book is the perfect guide for business leaders who recognize the need for tangible change and want to execute it as effectively as possible.

The key, Marmon explains, is to identify your company's culture and cater your plan's language to suit what will resonate with your employees the most. This will establish a sense of alignment with your business's vision and direction,

which can be one of the biggest hurdles to overcome. You cannot achieve success in a period of change if your team is doubtful and unwilling. With your company united toward your vision, you can begin to enact real change.

However, this is only the beginning. Marmon's book also outlines how to connect with fellow leaders in your company to develop a framework for growth. By creating a stable foundation and inspiring change, you'll find this time of major transition to be much smoother than you may have anticipated. As a result, your company will come out on top at the end of the COVID-19 era.

Marmon's mantra is inspiring: "With the proper process, change is not hard." And with her book, "No One's Listening and It's Your Fault," business leaders can see just how simple change can be.



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September 2020

Is Your Building Safe Against COVID-19 Or Is an Outbreak Waiting to Happen?

The indoor air quality consulting business was pretty slow this summer, mainly because most office buildings have been empty. As things start to reopen, many building owners are looking for ways to protect their tenants when they return to their buildings. However, being a real estate professional doesn't always equate to being an environmental professional. For example, a few weeks ago a property manager friend of mine asked to pick my brain about possible strategies to defend against COVID-19.

Over lunch, she revealed that her building's owner had a knee-jerk reaction regarding new technology to address viruses in the building. Whenever the owner heard of a new preventative technology, through the media or otherwise, the property manager was asked to investigate. These requests changed weekly to include things like walk-on mats in front of entries, plastic coverings over elevator buttons, and special wipes to clean the elevators regularly. Just chasing these technologies became a full-time job.

There are plenty of options available and she didn't know which way to turn. During lunch, I helped her sort through the myriad of options available today. Every option has its own risks and its own rules. Here are some options you may be considering for your own building:

ULTRAVIOLET LIGHT

I think ultraviolet (UV) light is a good solution, but it's not for every application. There is an intensity factor for UV light that creates a "kill zone." The intensity of the light has to reach a certain level in order to inactivate viruses and

bacteria. This means you cannot have a UV light on one end of the room and expect it to take care of viruses throughout the room. Viruses 20 feet away are not attracted to the UV light, may never make it to the UV light, and may still remain viable.

VIRUCIDE

Another good solution, but again, not for every occurrence. The EPA has a list of virucides, products that are known to kill COVID-19. Some of them are as simple as peroxide or bleach, but many of them are specific products that are designed to kill bacteria and viruses. When using a virucide, consider the following two critical factors:

Dwell Time • The first factor is dwell time. This is how long a product actually needs to sit on a surface in order to be effective. The dwell time can vary between products. In recent weeks, I have talked to a number of property managers about their cleaning strategy, and they tell me, "The cleaners spray this chemical on the surface, then wipe it off immediately."

My response was, "Find out what they're using and have them tell you what the dwell time is." A virucide isn't instantaneous. It needs to be given enough time to be effective.

I have a virucide that I'm really happy with. It has a dwell time of 10 minutes. This means if you spray it on a doorknob or a desk, that surface has to remain wet for 10 minutes for the virucide to do its full job. If you wipe it away before the dwell time is completed, the product is not guaranteed to be effective.



Unknown Chemicals • The other factor to consider when using a virucide is its impact on the environment. This is a huge concern for indoor air quality. If the product you're using has toxic substances that fight viruses and bacteria, does it have any residual activity? Meaning, if a small amount of the product accidentally remains on a portion of a desk, will it harm someone if they touch it with their bare skin? What if they set a sandwich on the desk? Is there a chance of them ingesting something?

You have to know what negative health effects may result from a given product. In any building, a certain portion of people will have allergies or asthma, which means they have a compromised immune system already. Consider if they might have a negative reaction

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to the product. Additionally, if you're using a virucide in a school, you need to be very aware of what you're bringing into the building where young children will be.

DETAILED CLEANING

Detailed cleaning is a good answer to cleaning surfaces that might have been infected. But, as we've discussed in previous articles, if no one is checking those surfaces, how do you know they're clean?

INTERNAL SAFETY GUIDELINES

In an attempt to reduce the chances of spreading the virus, many buildings have created safety guidelines that people are expected to follow. Limiting elevator occupancy, wiping down surfaces, and checking people's temperatures are a few common, reasonable approaches. However, they too come with drawbacks.

For example, experts vary in regard to how many people should be allowed in an elevator or how often surfaces need to be wiped down. There's no strong research to give us a solid answer. Additionally, wiping down door handles in offices and restrooms every 30 minutes might be helpful, but it might not be cost-effective, as you have to pay a custodian more frequently. And if tenants request that surfaces be wiped down more frequently than that, the cost only goes up.

Additionally, if you are going to create safety protocols, you need to make sure they are enforced properly. I've been in buildings where my team was supposed to have our temperatures checked before entering, and an impatient receptionist rushed through the process without checking our temperatures at all. In one building, my team and I stepped out onto a floor and found a sign in the elevator lobby that asked occupants to disinfect the bottoms of their shoes with a nearby spray bottle. As we stood there, we watched two office workers step off the elevator, neither of them wearing masks, and walk into the space without spraying their shoes.

What's the point of having safety guidelines like these if you're not going to insist that your employees follow them? If the rules aren't going to be followed, you might as well not post them.

I'll be the first to admit that I don't know everything about viruses or how to avoid them. But I can tell when "solutions" are really just smoke and mirrors. Not knowing what works, and what doesn't, can cost you time, money, and peace of mind. Making decisions based on guesswork can be a far more costly solution than if you had just asked for help in the first place.

It's a new learning environment for everyone — yes, that means me, too.

Train West

11 DAYS DELETED FROM HISTORY

How the British Changed Their Calendar System and Caused Chaos



For centuries, Europeans used the Julian calendar, created by Julius Caesar in 46 B.C. It was based on the solar calendar, so most of Europe thought it was the most accurate calendar. However, over the centuries, dates had "drifted," and many important days, like Easter and the spring equinox, were no longer falling on the dates they were supposed to.

To compensate, the new Gregorian calendar was developed and put to use by Pope Gregory XIII in 1582. It helped put things back in order and eliminated the extra day every 128 years.

However, not everyone adopted the Gregorian calendar right away, such as the British. That meant that Europeans were using two diverging calendars for over 200 years. Talk about confusing! People realized that as the world started to expand and as countries became more connected, having a single calendar system was critical.

Finally, the British chose the year 1752 to make the change. But, in order to make it work, they had to "jump" forward. For instance, 1751 could only be 10 months long — starting with March and ending with Dec. 31, 1751. But even that adjustment didn't quite bring the English up to speed in time to make the shift. They also had to cut 11 days from 1752. The unlucky dates that were cut were Sept. 2–14, 1752.

The people were not happy. English historians found research that British citizens chanted "Give us our 11 days!" in the streets. The phrase became so popular that some politicians even campaigned with that as their slogan. Several other historical accounts state that many people were worried that by cutting the calendar, their own lives would be cut 11 days shorter. There was a lot of confusion and chaos, but over time, dates fell where they were supposed to, and everyone lived their full lives, those 11 days included.

THE FASTEST WAY TO FIND LEGIONELLA IN YOUR BUILDING



If your building has Legionella in its water, would you want to wait 10-14 days to find out? That's how long it would take to complete a culture sample, the traditional method to test for Legionella bacteria in a water source. This means that if your building does have a Legionella problem, it could be almost two weeks before you know for sure. If the safety of your building is in question, time is of the essence. Fortunately, we now have a far more rapid method to test for Legionella: quantitative real-time polymerase chain reaction (qPCR).

When testing for Legionella, the qPCR method amplifies the target gene sequence unique to the genome of the Legionella bacteria. With the qPCR method, results can be determined by a laboratory in 2–4 days. Some labs have even reported results in as few as eight hours. The qPCR method can also be used to detect strains of Legionella that are not culturable, offering more accurate results. This method only came about in the last few decades.

Polymerase chain reaction (PCR) is a method that allows scientists to replicate a small sample of DNA until it is large enough to detect a nucleic acid signature in the sample. The concept of PCR first appeared in 1971, when Professor Kjell Kleppe and Nobel laureate Har Gobind Khorana described a technique that was a possible method for nucleic acid replication. Kleppe and Khorana's technique matched what is today recognized as PCR, but it could not be proven experimentally at the time because the technology to test such methods was not yet available.

Over a decade later, in 1983, an American biochemist named Kary Mullis successfully demonstrated PCR. In the following years, other researchers helped modify Mullis' invention. The perfected PCR technique came to revolutionize biochemistry, molecular biology, genetics, medicine, and forensics. In 1993, Mullis won the Nobel Prize in Chemistry, an honor he shared that year with fellow biochemist Michael Smith.

Around the same time Mullis won the Nobel Prize for PCR, molecular biologist Dr. Russell Higuchi determined that by adding a fluorescent label that binds to accumulating PCR products, the process could be monitored in real time. This paved the way for qPCR. Today, researchers measure any change in the fluorescent reporters by using either dyes or probes. The dyes bind specifically to the double-stranded DNA. The probes are synthesized to degrade during the amplification process, which releases the fluorescent signal. When the fluorescent signal is detected, researchers are able to confirm the presence of a specific strand of DNA.

These advancements allow researchers to detect the amplification of targeted DNA in real time, rather than at the end of the process, as is the case with conventional PCR. The new gold standard for Legionella testing, qPCR has become a vital tool in pathogen detection and biomedical diagnostics.

So what does this all mean for a building owner or facility manager?

The equipment to perform a qPCR analysis of water, looking for legionella bacteria is now commercially available. Our staff has been trained in its use, and we can now sample, analyze, and report on the presence of live bacteria in your water system in 45 minutes. All done onsite!

Building owners and facility managers will certainly benefit from knowing now rather than waiting for a laboratory analysis. More information is coming on this in next month's newsletter.

SUDOKU

HAVE A LAUGH WITH TRAVIS



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