

The Making of a Visual Workplace: Changing Information Deficits into Visual Devices

The Visual Workplace

In this article on workplace visuality, Dr. Gwendolyn Galsworth, visual workplace expert and author of *Visual Workplace/Visual Thinking* and *Work That Makes Sense*, sets out the basic concepts and definitions of this powerful adherence and empowerment approach.

For more information call 503-233-1784, or visit www.visualworkplace.com.

The entire world of work—whether assembly plant, hospital, bank, airport, military depot or pharmaceutical factory—is striving to making work safer, simpler, more logical, reliable, and linked, and less costly. Central to this is the visual workplace.

The visual workplace is not a brigade of buckets and brooms or posters and signs. It is a compelling operational imperative, central to your war on waste, and crucial to meeting daily performance goals, vastly reduced lead times—and dramatically improved quality.

But most people do not understand the tremendous power of workplace visuality. Instead they treat it as an add-on to some other improvement effort, whether lean or six sigma. “We know what visual is... Let’s put up some signs and put down some lines. ” This is not just a mistake in thinking; it is the loss of a huge improvement opportunity.

Translating Vital Information into Visual Devices

What precisely is a visual workplace? Here is my definition:

A visual workplace is a self-ordering, self-explaining, self-regulating, and self-improving work environment...where what is supposed to happen does happen, on time, every time, day or night—because of visual solutions.

This definition, which evolved over a decade of implementations, is worth a closer look. The first half—“a visual *workplace is a self-ordering, self-explaining, self-regulating, and self-improving work environment*”—describes the outcome in terms of functionality. When a workplace gets visual, it functions differently—safer, better, faster, smoother. Specifically, a visual workplace:

- Is in order, order you can see, and is able to harness that order for a business advantage.
- Explains itself to anyone and everyone in it...sharing vital information about what to do/what not to do, how and when to do it, and how to respond if something (including yourself) goes wrong.
- Is transparent...because it explains itself, a visual work environment can regulate itself—through high impact/low-cost visual devices.
- Acquires the ability, overtime, to correct itself—to become self-improving because visual devices are constantly providing feedback on our performance and the performance of the company itself.

The second half of the definition—“*where what is supposed to happen does happen, on time, every time, day or night—because of visual solutions*”—describes a broader outcome: a company that can, *through visual devices*, ensure the precise execution of standards—both technical and procedural standards. The result? Work is executed with precision, reliably and predictably translating perceived value (what the customer wants) into

Definition of a Visual Device

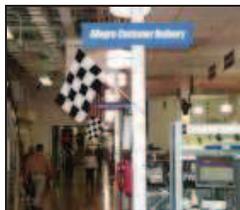
A visual device is an apparatus, mechanism, item, or thing that influences, directs, limits or controls behavior by making information vital to the task-at-hand available at-a-glance, without speaking a word.

received value (what the customer buys). Look at the definition of a visual device in the box.

A Gigantic Adherence Mechanism

Visual devices translate the thousands of informational transactions that occur every day at work into visible meaning. This visible meaning doesn't just impact performance; it creates performance. Here are four visual devices, each sharing visual information on four aspects of day-to-day work.

Showing Status



This checkered flag tells the supervisor and everyone else that these two extrusion machines are producing to schedule.

Sharing Work Priorities



The area supervisor created this visual display so operators could tell—at-a-glance—what order to work on next (red is first priority).

Preventing Defects



Operators put red tape on each of these poles as a reminder not to hang wiring harnesses too low and chance damaging their delicate terminal endings.

Providing Ease of Access



Though this plant has not yet gone lean, slanted green borders help forklifts pick/put pallets—while the yellow person-width border lets operators find orders more easily.

A visual workplace is made up of hundreds—even thousands—of such devices, created by the workforce that needs them. Added up, these devices create a language of excellence in the enterprise—a language that speaks to everyone and anyone who wants to listen.

Is your workplace speaking the language of excellence to you?

The Problem: Information Deficits

In this article, Dr. Gwendolyn Galsworth, visual workplace expert and author of *Visual Workplace/Visual Thinking* and *Work That Makes Sense*, shows us how missing answers (information deficits) erode performance and why visibility is a requirement of every company's journey to excellence.

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As every company knows, workplace information can change quickly and often—production schedules, customer requirements, engineering specifications, operational methods, tooling and fixtures, material procurement, work-in-process, and the thousand other details on which the daily life of the enterprise depends. In any single day, literally thousands of informational transactions are required to keep work current, accurate, and timely.



The Maintenance Department in this facility created this visual display to show everyone and anyone the status of current work orders: New/Green; Completed/Yellow; and Past Due/Red.

But what happens when this vital information is hard to access, incomplete, inaccurate, or simply missing? What happens is this: People ask lots of questions and lots of the same questions, repeatedly. An information-scarce workplace is the opposite of a visual workplace. When key information is not instantly available, the company pays for that in long lead times, late deliveries, poor quality, mistakes, accidents, low operator and managerial morale, and runaway costs.

When workplace visibility is not firmly in place, these unhappy occurrences are chronic and unrelieved. They happen "all the time" —day in/day out, week in/week out, year in/year out. Struggle becomes a way of life.

In the pre-visual workplace, everything and everyone are forced to exist within a narrow definition of their capability. The physical work environment is devoid of definition or conveyed context. There is no common purpose. It is devoid of meaning. Attempts to improve the process of work invariably fail because even the smallest gains disappear overnight. A pre-visual workplace has no means to sustain them, however hard-won.

This is the unhappy state of affairs that results from *chronic deficits of information*—unanswered questions.

Far too many offices and production floors are flooded with questions that are asked—but many more experience a worse condition: questions that are unasked. We say "worse" because all too often when a question is not asked, people make stuff up. They simply make up an answer. Sometimes that works to the benefit of the company, but all too frequently it works against it. People make stuff up and accidents happen, material is lost, defects are produced, delivery times are missed, and customers flee.

Working in an environment without visual information sharing is like trying to reach a destination by driving a



Here is an information-rich work area at the airport. Can you see how this system of visual devices ensures that different planes can stop in precisely the right spot to precisely connect with the jetway and allow weary travelers to exit the aircraft quickly and safely? The answers are built into place visually.

hundred miles without a map, on a road with no road signs, no traffic signals, and no lines down the center of the road. You can probably make it but you are likely to pay a terrible price.

Verbal questions are so commonplace in most companies that some people (including managers and supervisors) sometimes think that their main job is to provide the answers—day in and day out, all the time.

Calculating the level of information deficits (missing answers) in your company is the quickest way for you to diagnose the extent to which a visual work environment is both absent and needed. You can do this by keeping track of the questions you are asked in the front of a memo pad—and tracking the questions you ask in the back.



Compare this work area with the previous one. What is the story this area tells about the level of work that is possible here? Can you see how it is starved for information? Can you hear the questions that the lack of visibility triggers in this area? Where do we go for the answers? Which gate area looks more like your company? What is the impact of that?

Another way is to implement *The First-Question-Is-Free Rule*. Here's how that works.

1. When someone approaches you with a question, answer it politely and clearly. But as that person walks away, make a mental note: "That's one."
2. Then wait until you are asked that same question again, either by the same person or someone else. Again answer the question politely and clearly; and as that person walks away, make the mental note: "That's two!"
3. The first question is free; and the second time you hear that same question from the same person or anybody else, it's time for you to create a visual device—so you never ever have to answer that question again and no one ever has to ask it.

Start taking concrete steps in turning your work area—your company—into a visual workplace. Notice the information deficits around you; notice the questions—and the answers that are missing. Then start answering them through visual devices. Create a workplace that speaks.

Visual Devices: Letting the Workplace Speak

In this visual workplace article, Dr. Gwendolyn Galsworth, visual workplace expert author of *Visual Workplace/Visual Thinking* and *Work That Makes Sense*, shows us how visual devices let the workplace speak.

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In a visual workplace, information is converted into simple, commonly-understood visual devices, installed in the process of work itself—as close to the point of use as possible. The result is the transformation of a formerly mute work environment into one that speaks—clearly and precisely about how to perform error-free work safely, smoothly, reliably, and on-time.

What happens when the workplace speaks? What happens when formerly voiceless work stations, equipment, tools, machines, and material can communicate freely and precisely with us? What happens when we can know vital information—the details of work—at a glance, without speaking a word, without asking (or answering) a single question?

When a company becomes a fully-functioning visual workplace, each employee has instant on-demand access to information vital to one's own work and the enterprise is infused with intelligence you can see—intelligence that illuminates and drives the corporate intent. The result is benefits you can take to the bank.

In a visual enterprise, every section of the floor, every bench, work surface, hand tool, part, machine, rack, cabinet, and bin is equipped to make a contribution to the collective purpose that is beyond its mere existence—because now that item can visually communicate vital information to anyone and everyone who needs it as they need it. There are no exceptions.



Brilliant floor borders in this massive food manufacturer in Australia show us the walk-lanes while alerting forklift drivers to pedestrian traffic.

Visually highlighting the "CIS" in this drug address helps pharmacists keep dangerous mix-ups to a minimum.



In a visual workplace, floors do not exist simply to walk on or hold things up. They function—showing us where it is safe to walk, where materials are, and where we are supposed to work. Benches are not merely surfaces on which to place parts and tools. Through the *visual where*, benches tell the exact location of the "things" of work—or show us that they are missing. A simple address can even save lives, as you see in the example to the left.

Departments need not merely be a collection of furniture, things, and people. When we give them a voice through workplace visibility, they become productive allies that manage themselves and the enterprise as well. Tools are not restricted to merely helping us convert material. They can also tell us how to use them properly, when they need to be calibrated, and when they are unsafe. In a visual workplace, tools become vocal partners in the production process. And when we create equipment that speaks, machines can assist in their own quick changeovers.



In this cell, operators leave dull tools in the red location on the machine face and maintenance returns them, sharpened, to the green location.

In a full-functioning visual workplace, the things of the physical workplace and the workplace itself contribute to the making of profit in ways that go far beyond their mere presence. Through visibility, they become active, sustaining partners in the process of work and day-to-day improvement.

Imagine that any employee—whether a newcomer, veteran, or temp—could safely, effectively, and efficiently run a new process in your company with merely a simple orientation because that process is visually capable...with vital performance information available instantly at point of use. What would that mean for your bottom line?

Go further. What if your entire enterprise—from sales and customer service through design, production, and shipping—were visually capable of responding to changes in minutes instead of days? Would that improve your competitive advantage?

Look at the solutions in this article. Can you see the connection between them and applications that are right for your company—whether factory, bank, military depot or hospital? Do you begin to see the great power of information that is embedded into the process of work, visually available to everyone and anyone who needs it, as close to the point of use as possible? If you do, you are already on your way to workplace visibility.



This scrap separator solution began as six styrofoam cups that the assembly operator taped together so she could sort defects into groups as she found them.