



ART & SCIENCE SERIES

1. Our Craft is a Blend of *Art* and *Science*

“Art and science have their meeting point in method.” ~Earl Edward George Bulwer-Lytton

Fundamental organizational shifts are partly chaotic and partly predictable. We have to be able to plan for and address the known aspects of change and at the same time acknowledge and deal with the inevitable puzzles, contradictions, and conundrums that arise.

Think of the execution of organizational change as a continuum. At one extreme, it is a stable process where we manage events by applying set rules and formulas. Here, a “paint by numbers” or cookbook solution would be acceptable. At the other end, it is a mystery, guided by coincidence, random circumstances, and chance acts. Under these conditions, “gut instinct” and hope would be acceptable components of a strategy.

Neither of these extremes ever happens to their fullest extent, of course, but we must be aware of both ends of the spectrum if we are to understand how to balance the two.

The Logical Side of Change

*The **science** of organizational change execution is rooted in the study of humans during transition—how they understand and commit to a change, align with one another in support of it, and deliver the promised outcomes. The science of change informs us; it provides an anchored platform from which we can attempt to replicate success [patterns](#).*

When implementing strategic initiatives, we can standardize certain elements of the process to maximize consistency and decrease variations. The science of our work gives us the ability to recreate outcomes within acceptable deviations of norms. Those things that need to occur repeatedly with some standard of quality do so without much digression.

This is the “technical” portion of our craft, and it includes many aspects, including:

- Likely risk, given certain circumstances
- Mindset patterns that result in particular interpretations/actions
- Behaviors patterns that lead to foreseeable reactions

- Proven intervention principals; clearly defined nomenclature
- Validated tools
- Field-tested techniques

When addressing the predictable, logical, and inevitable challenges of change, it is important to have access to tools we can trust to create similar results most of the time.

Of course, we must also be cautious. Too much reliance on the technical elements of our craft can lead to rigid analysis, which can create misleading findings and mechanical responses. To balance this, we must attend to the *artistic* side of our work as well.

Using Creativity and Intuition to Explore the Possibilities

The **art** of change execution frees us to explore the possibilities beyond the constraints of science:

- Apply intuitive judgments and creative actions to unique circumstances and untested solutions
- Surface and probe the unknowns, ambiguities, and confusion of change
- Uncover, examine, and resolve multiple scenarios of success and failure

Through the art of change execution we can examine new horizons, generate meaning in the moment, hold apparent contradictory information as equally valid, and form innovative responses.

The artistry of our craft is where nuance, subtlety, and shades of distinction reside. This is where we uncover and orchestrate the less obvious—but nonetheless crucial—dynamics that so often have a significant influence on the outcomes of change.

The technical components of our craft are designed to produce precise results each time they are used, while the artistic components help us move forward with more fluidity—each application uncovers its own novel effect.

We must be cautious here as well. Too much reliance of the artful elements of our craft can lead to careless analysis, whimsical interpretations, and unfounded recommendations.

The Balance Lies Somewhere in the Middle

The *science* of change is about applying uniform patterns, risk tools, and techniques to accomplish a narrow range of outcomes consistently. It involves staying within familiar/defined boundaries and leveraging known solutions. This is the part of practicing our profession that calls for high structure and low discernment.

The *art* of change is about applying creativity and intuitive judgment to unique circumstances. This is where we deal with previously unexplored territory—extraordinary occurrences, unfamiliar twists, unexpected dynamics, strange reactions, unanticipated consequences, etc. It involves exploring new horizons and fostering innovative responses. This is the part of our craft that calls for low structure and high discernment.

At its most simplistic, we apply the science that we know so well in order to replicate success on a frequent and reliable basis. When we apply our art, we create fresh responses for seldom-seen dynamics and circumstances (successes occur, but are far less predictable).

We need both in order to practice our craft, and can balance them best when we use both *discipline* and *courage*:

- We need *discipline* in order to attend to the linear, systematic aspects of change with concepts and tools that provide consistency. This helps us handle the predictable science side of our work.
- We need the *courage* to face the non-linear mystery of change with enlightened intuition and decrement. Courage is critical when addressing the unique, artistic aspects of facilitating change.



2. Finding the Balance Between Logic and Creativity

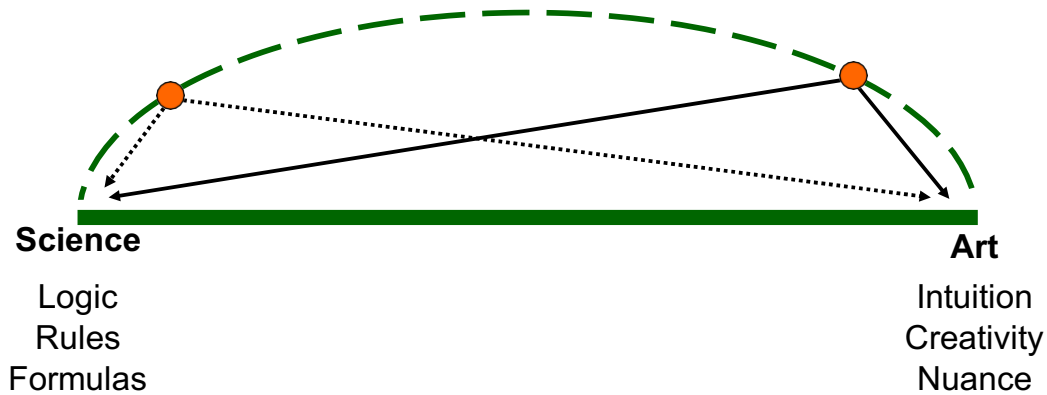
There are clear signature patterns that indicate whether an initiative will succeed or fail. An experienced change agent who recognizes and properly addresses them can greatly influence a project's outcome:

- The characteristics of success can be infused into the implementation process from the beginning and encouraged throughout execution.
- The dynamics and behaviors associated with failure can be avoided altogether—or at least anticipated, detected, and mitigated as much as possible when signs begin to surface.

Change agents who practice their craft with the proper balance of art and science foster success patterns and minimize failure patterns. In doing so, they bring to bear a powerful competitive advantage for their clients.

However, finding that balance is a challenge.

Professional change facilitation resides on a continuum, with “art” and “science” at the poles. Our “craft” is represented by a sliding point that can reside at any position between the two extremes. Movement toward or away from either end of the continuum shouldn't be based on our comfort with or prejudice for one or the other. Instead, we should practice our craft as circumstances dictate...sometimes skewed toward the science of our work, sometimes reflecting more of the artful aspects. Our work should demonstrate a shifting center of gravity governed by such variables as the [Degree of Difficulty](#) of an initiative, the client's experience and skills, and the limits of our capabilities.



If you're like most practitioners, your tendency to apply either aspects of the continuum in proper proportion is often affected by your bias toward structure and flexibility. If you are predisposed toward structure, you might rely too often on the logical, linear application of tools and techniques and sometimes appear to be a “paint-by-numbers” practitioner. If inclined toward flexibility, you might rely too frequently on hunches and inklings and sometimes come across as “making it up as you go.” Too much science can make clients feel that you are unaware of or insensitive to the reality of their circumstances. Too much art can leave them feeling that you don't have enough experience to handle certain situations.

The proper blend of the two at any one moment in time is not accomplished by reaching a negotiated settlement somewhere in the middle. Clearly, there are distinctions, but because they reflect different ends of the same continuum, science and art also overlap. More to the point, they are embedded in each other, although one is often more prominent under particular circumstances.

Mastery in any field is accomplished when both scientific and artful perspectives forge an interdependent bond:

- Leonardo daVinci was a consummate painter/sculpture because he relied on his interest and knowledge of physiology and anatomy to inspire his creations.
- Twyla Tharp's groundbreaking dance innovations were a reflection of her creative interpretations of bodily movement and basic principles of biology and physics.
- Einstein's genius resulted from both an unprecedented depth of knowledge about physics, and his ability to see what was beyond the limits of logic and explore the unfathomable.
- Apple Computer owes its success to the blending of technical sophistication with design elegance.

Successful change execution comes about through the blending of both ends of the science/art spectrum (e.g., rigorous attention to selection of the right diagnostic tool, while also attending to the energy flow of a situation and gently guiding the process with your instincts).

The skillful practice of our craft isn't about determining whether a situation calls for science or art—it's about establishing the correct hybrid of the two for each circumstance while remaining unbiased about what the appropriate mix will be the next time.



3. The Constantly Shifting Emphasis Between Science and Art

The *science* of our work is about what we've seen before and know how to deal with; the *art* is centered around the unfamiliar and what we consider "cutting edge." Change practitioners, therefore, start out as inquiring artists and gradually become precise scientists—only to swing back and forth between the two for the rest of their careers.

When we first enter the profession, even if we are trained or licensed in one or more change methodologies, we spend years trying to figure out what's really going on when change is being executed. This means, in the early years, there is more revelation than certainty...more art than science.

It might seem strange to call a new recruit an artist. We typically think that the artistic dimensions of our craft emerge with experience. Of course, this is true: the artistry of a practitioner's work does flourish when fed by years of practical trial-and-error seasoning. In the beginning, however, we tend to use raw instinct more than well-honed skills.

A framed certificate on the wall may give the illusion of a scientific foundation, but a novice constantly faces events and circumstances with fresh eyes, and thus spends most of his or her time in foreign territory...as more of an artist than scientist. Granted, at this stage of development, the art is rather crude, but nonetheless, the budding practitioner encounters more unfamiliar than familiar circumstances.

Science lies within the borders we know; art lies at the horizon we explore. Over time, more and more aspects of the work gravitate from art to science. After enough learning and repetition has occurred, interpreting symptoms and applying the correct mitigation strategies becomes familiar, and consistent responses start to form. What was unusual is now expected, and well-grooved sequences take shape. Once assessments and actions become routine and deliver recurring results, the realm of exploratory art can give way to reliable science.

The longer we practice our craft, the more "science" we accumulate in our repertoire. This is a good thing; however, every safe haven has its price. The more extensive our experience, the more accustomed we become to what unfolds in a variety of situations and the more standard our interpretations and interventions become. When practitioners experience a wide range of circumstances that are both familiar and manageable, they are said to possess the highly sought-after currency of credibility—*expertise*. We all want this kind of deep proficiency, and yet it can be our downfall if it isn't balanced with maintaining a sense of awe and wonder.

If we lack answers, we can't provide much value to our clients. Yet, if we don't extend beyond the boundaries of the familiar and explore zones where we don't have answers, our practice becomes a lifeless shell without fresh insights and the energy only passion can fuel. The longer we apply our craft, the more expertise we acquire. However, we can't allow the scientist in us to become complacent or arrogant. The best way to guard against this is to ensure the artist in us comes forward. This means continuing to probe and experiment in areas where answers have not yet emerged...or may never become clear for us.

The bottom line is this—over time, as we learn more and more answers, we must remind ourselves that we will never have *all* of them. Mastery is about being more skilled than the constituency you serve while remaining a student of your chosen field.

Serious practitioners seek the confidence that comes from being a proficient scientist and the humility that comes from being a curious artist. The only way to honor both ends of the continuum is to move back and forth between them for as long as we engage in this work.



4. Weaving Science With Art—Over and Over Again

We all unfolded differently in our paths toward proficiency, yet we each found our own understanding regarding the relationship between science and art. In this post, I'll share how I have seen these two elements impact the way practitioners develop.

In my years of facilitating change and coaching change agents, I've seen people use many different routes to become skilled practitioners. Some approaches are much more effective than others but all address, in one way or the other, how science and art influence an agent's maturation.

Few of us are interested in imposing on others any singular path to practitioner maturity; however, I do think it is useful to share with each other what we've seen that works. Below is a sequence that reflects some of the more effective aspects I've seen of practitioner development. It's a composite of what's worked for numerous people I've helped move forward on their journey toward mastery.

The sequence may come across as more lock-step than is actually the case. Real life is never as one-dimensional as efforts to describe it suggest, so please pardon my inability to adequately express all the false starts, overlaps, and general "messiness" of what the journey truly entails. Please note that I have avoided mentioning a timeline, because a person's speed through this sequence should be dictated by the unique circumstances in his or her life and, therefore, can vary tremendously.

The Preliminaries

Novice practitioners "officially" begin their journey when they consciously decide to pursue change facilitation as a *career* (rather than as a temporary role in a short-term project). From there, their progress is, to some extent, predictable:

1. They become familiar with the available implementation approaches (models, frameworks, methodologies, etc.) by reading, attending various workshops, getting exposure to other practitioners with particular approach biases, etc.
2. They match what they learn from this review with their own inclinations. (An individual practitioner looks for something that feels like "coming home," even though it might be new material.)
3. They select one approach to serve as their primary conceptual foundation. Most new players lock onto a single model/framework or form a composite of different inputs to create an approach specifically suited to their talents and philosophical leanings.
4. They determine what formal (provided by others) and/or informal (self-directed) education/training/coaching/certification processes they want to pursue.

Nuts and Bolts

5. Apprentice practitioners participate in whatever formal/informal learning processes they selected. This is best done in phases: They become involved in various educational/training/coaching experiences, punctuated with periods of paid or volunteer application work, so the learning is both theoretical and practical.
6. As each phase of learning is completed, it's important that apprentices "ground" themselves:
 - They celebrate the new level of proficiency just attained (while remaining aware of how little they still know).
 - They apply whatever they've just learned with the mindset of an artist. Regardless of what theoretical knowledge/early application experience they have at this point, their initial efforts to employ the concepts and tools is artwork because it is at the unfamiliar edge of their limitations.
 - Now is the time for endless repetitions...practice, practice, practice. Apprentices will move from artistic exploration and refinement to deep competency only by actually deploying the recently acquired knowledge and skill over and over and over. Consistent practice will eventually allow them to replicate success on demand (or at least most of the time).

This grounding of a recently acquired knowledge or skill is not complete until the repetitious application has reached the point where it comes forward effectively and effortlessly each time it's needed. When this begins to happen, the unfamiliar landscape of artistry gives way to the familiar territory of science.

The Long Haul

7. Over time, confidence will build with each new addition to the practitioner's expanding scientific repertoire. As it does, a natural shift in focus to the *horizon* will form around each new aspect learned.

Every proficiency has an outer limit, beyond which are more unresolved questions than confident answers, more tentativeness than certainty. This horizon represents the realm that separates the known from the unknown.

At the edge of every scientific aspect of a practitioner's work (what is familiar and effective) is a frontier to be explored. Here, practitioners start with what they are confident in and then go deeper to unearth new implications, or to rise to a higher-order comprehension, or to move laterally to examine where the current knowledge/skill intersects other related disciplines.

Horizons are engaged by exercising artistic muscles:

- Exploring facets of new capabilities just beyond their reach
- Pressing into the uncomfortable spaces where they are less sure of themselves
- Finding and slightly exceeding their limits so they can learn what is there for them to uncover, embrace, and possibly one day incorporate into the scientific elements of their work

If practiced long enough, their new understanding and skills will become more and more reliable...moving beyond artistic exploration to becoming part of their scientific stockpile. Every time their fluid art solidifies into reliable new learning, the breadth and depth of their scientific foundation advances.

8. Practitioner maturity is characterized by a never-ending cycle of the unfamiliar becoming familiar only to lead to more unfamiliar territory to be explored. The path to mastery is filled with horizons that evolve to proficiencies that then open doors to more mystery.

Learning on the Edge

9. As years of practice mount up and the relied-upon science reflects wider and deeper competencies, the practitioner begins relating to client work as a way of calibrating where he or she is in “craft maturity” (ranging from novice to mastery). Each client situation becomes an opportunity either to fulfill the demands of the presenting circumstances or recognize the inability to properly do so (and thus identify a gap to close). At this stage, to a growing extent it is the horizons that take center stage for learning. At the upper end of a practitioner’s maturity, the artistic challenges, not the science, propel most new learning.

This happens because, after many years of practicing the craft and strengthening the scientific base, more and more of what a practitioner encounters with clients will fall into familiar territory where competencies are strong and the solutions provided have their intended affect. Science-related learning will still take place, but it will be more to reinforce existing knowledge than to develop new skills. At this juncture, the kind of learning that will contribute the most to advancing a practitioner’s craft maturity is that which happens when he or she works just on the other side of current understanding and skill.



5. One Practitioner’s Art Is Another’s Science

The *science* of change execution is for the domesticated parts of our work; the *art* covers the untamed aspects. Both are essential to creating the value we promise clients. To reach the proper balance between the two, however, we must have a deeper understanding of their distinctions.

In any profession, both science and art have two levels of application:

- **The collective level**—There is the *Science* (with a capital “S”) of a profession, which is the term I use to mean those observations, findings, approaches, tools, and techniques that are familiar to all who have deeply studied and practiced a particular career. It is the Science of an occupation that serves as the conceptual/application basis for recognizing it as a legitimate profession. Doctors, lawyers, and serious change agents each share “collective Science” within their respective disciplines: A physician’s Science includes the basics of physiology; for attorneys, it’s the rule of law; for change practitioners, it’s the underlying dynamics of how humans act during transition. The collective knowledge and capacity to replicate outcomes (Science) forms the underpinnings of all recognized fields of study.

Correspondingly, there is a collective *Art* (with a capital “A”) within each profession. This is where people in a professional community share common horizons...zones beyond which little is known for sure: For physicists, it’s the elusive unifying theory of everything; for astrophysics, it’s the question of what existed just prior to the Big Bang. One of the unsolved conundrums for change agents is why people sometimes behave counter to what is in their best interest. Practitioners in any field explore these unknowns all the time and occasionally find solutions that can be replicated by others, thus giving birth to a new part of their discipline’s Science. More often than not, however, the explorers come back with new perspectives and insights but the mystery still prevails.

- **The personal level**—There is also the *science* (with a small “s”) of an individual “professional.” This is the term I’ll use to refer to those observations, findings, approaches, tools, and techniques that are familiar to an individual who has deeply studied and practiced a particular profession. “Personal science” reflects what an individual practitioner is familiar with and skilled at doing. It represents a personalized signature pattern or professional fingerprint—each change agent has his or her own one-of-a-kind profile of capabilities. Others may possess some of the same knowledge and skill but not in the exact same configuration.

Likewise, there is personal *art* (with a small “a”), which represents an individual’s horizon. Beyond this point, an individual practitioner deals with events and circumstances that are completely or substantially new territory for him or her. This is where observations, findings, approaches, tools, and techniques are tested and refined. Success may occur within an individual’s personal art zone but it’s not likely to be replicated on a consistent basis. When one’s art can be relied on to achieve its intended results on a consistent basis, it becomes incorporated into the individual’s personal science.

The balance between the science and art of change facilitation involves “S” and “s” as well as “A” and “a.” Not only do we as a profession constantly adjust the relationship between what we know and what we are still learning—the same can be said for us as individual practitioners. In fact, it is the individual level of this balancing act that ultimately drives new findings into the collective science and art of our entire profession.

In Closing

In this series, we have explored the logical and creative sides of change execution and discussed the importance of finding a balance between the two. That point varies with each project, and with the practitioner’s skill level. Nonetheless, only by having a full appreciation of what both sides of our coin entail and how they relate to and impact each other can we make progress individually and as a professional community.