The Power of Empathetic Leadership in an Evolving World

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Facing a Complex World

The problems we are wrestling with this century are *complex*. Yet our education system only trains our best and brightest to navigate a *complicated* world, where detail is single-disciplinary and fine-scaled, and success is promised to specialists.

In the face of rapid change, as teachers and leaders, how do we retain the resilience of our students, or our work teams, and provide safety for everyone, in the university or the workplace? How do we take our younger, newer participants and scale their abilities and connectivity rapidly enough to address their bottom line and ours? How can we appreciate the insights of those same students and employees in the rising digital tide that we, as academics and as managers, need to access in order to have our products and ourselves stay relevant? The answer lies in understanding the dovetailing of personal development and empathetic growth.

But first—why should you read this piece?

What does a professor even pretend to know about leadership? Academia is hardly a corporate environment, where leadership must adapt to what is often a rapidly changing marketplace. At least, that's the external impression of how academia works.

Let's realign. It might help to understand my deeper "why" – why I am writing on leadership in these turbulent, changing times. If you understand my "why," and maybe also understand how that "why" might line up with your own "why," you'll have a reason to invest the 30 minutes it takes to read this.

Evolving Out of Old School Design Thinking

Start with a story. First off, I'm probably not what you'd imagine when you think of the "typical" professor. While I've done lots of things in academia over the years, including mentoring approximately 2000 engineering students, mostly undergraduate seniors, as they successfully completed projects (as paid consultants!) for over 85 corporations in the Pacific Northwest (including Boeing and Microsoft), those experiences are not what started my deeper "why." What started me off was my work as an environmental activist. I drove campaigns to save old-growth forests as well as that iconic fish of the Pacific Northwest—the wild salmon.

I didn't have a name for it back then, but my strategy for advancing protections for both forests and fish was always "run experiments, see what works, learn, repeat." Nowadays, we'd call that Lean/Agile. But back then it was more pure desperation. There was no identification with these

issues in the larger population, and only a small handful of us was working on them in North-Central Idaho. If you ask most people in the U.S. about Idaho, they'll start talking about potatoes, not big, clear mountain rivers, and rugged, wild mountain ranges, which is actually what's at stake on the ground.

How to get people to do the right thing?

One of my primary companions in the work of protecting the environment was Bill Bob, an amiable, intense, monk-like fellow. Bill Bob had good strategic vision and had started a formidable legal organization called The Ecology Center of Missoula, where I served on the board. The group specialized in using various legal processes to halt destructive clearcutting and had some big wins in their portfolio. We would spend the occasional weekend driving through the forests, which were located between eastern Washington, and western Montana, collecting evidence for the various court cases against the Forest Service

On one of those trips, Bill Bob turned to me and said "Chuck, you deal with all sorts of different people, all the time. How do we get more people to do the right thing?"

I had been thinking a lot about this, and I told him that the problem was even bigger. The question wasn't just how to get more people to do the right thing but *how to get them to **know what the right thing to do is, and then to do it**.*"

The ability to *do the right thing* is enormously important in the context of any organization. Usually, the surface-level *right thing* coincides with leadership direction, and potentially a strategic planning process. Employees are told what to do, and there is an expectation that they will execute it.

However, anyone who has led an organization for any length of time knows that this simple thing—*do the right thing*—is actually extremely complex. Even the most well-meaning people, when told to do a particular thing, can misinterpret the command, and pull out of their own egocentric toolbox a past action that does *something*. That is, unless the circumstances around the action are simple enough, and repeatable behavior has been trained into that person. Built into the context of *do the right thing* is a belief that someone external person, or group, decides what that right thing is, and that the individual involved just has to execute this thing.

People like Malcolm Gladwell will tell you "train your people for 10K hours" and they'll be able to *do the right thing.* Which is fine if they're swinging a tennis racket or wielding a golf club. These 10K-hour rules, if you actually read the fine print, involve repeated, simple actions, like taking an order for fries. While people may experience some increase in judgment in applying a varied a skill set, the data is not promising regarding larger strategic planning. Everything is fine as long as we're talking about a ball bouncing around inside a set of lines on a court, or ketchup with your fries. But the world is a messier place than that.

Which brings us to the second problem – the real one that needs to be solved. *How do we develop people to know what the right thing is, and then do it?* Instead of capturing people and running them through 10K hours—something that's pretty much impossible for any business, let

alone a mostly volunteer effort to save forests—one must confront what is really a human development problem. Restated, it is this:

> *How do we develop agency in people to sense the circumstance, figure out what the right thing to do is, consider trade-offs, and then create action to move all of us closer to the goal?*

That moment in the car with Bill Bob, should have led to a flash of insight that I had finally asked the correct question. It did not. I was too young and inexperienced to know I had stumbled on defining the key problem in creating success. The short answer that we'll explore in depth—which took me an additional 20 years to discover and 5 years to flesh out—turned out to be empathy. Or rather, empathetic development—the process of developing increasing awareness of oneself, as well as others, and integrating the perspectives of others into larger solutions. With this, solving even complex problems, while difficult, can become possible. And do-able.

My "why"? As I grew in my own realizations, with increasing maturity, understanding the restated question—"*how do we get them to know what the right thing to do is, and do it?*"— became my life's "why".

Surviving business in a complex world

How might your "why" and mine intersect? Are you feeling overwhelmed with the rate of change in your business? Are you worried about evolving your business model and product, while maintaining a stable income stream to keep your employees paid? Are you concerned about expanding into different customer demographics that may offer potential revenue stream stability, while keeping your business alive past your eventual exit or retirement?

Are you worried about how your business intersects with the larger concerns of both our nation and the planet? Do you want your company to not just do well, but do good? Do you lie awake at night and wonder about our rapidly changing institutions, and how your efforts as both a business owner and a human will interface with these larger patterns?

Are you curious how you might eventually weave your business into a larger ecosystem of products and services? Are you concerned about how to train your employees to best deal with the future, while minimizing training cost?

Do you worry about building a community around your own activities, so you don't feel lonely and isolated, especially when the going gets tough?

Do you think about your legacy?

If any of this is resonant, your deep "why" and mine are the same in essence. How? **Because you can't do it alone.** And the only way you'll succeed is by gathering a team of employees smart enough to help you, a team that builds **the wisdom of an aware crowd.** And the way to create that wisdom is by understanding the challenges as well as pathways for success involved in getting people to both know what the right thing to do is, and to act on it, often independently

and within their appropriate sphere of influence. You have to be able to trust others to figure out what the right thing is, and do it. And tell you about what they're doing, fearlessly. Because you've already got a lot on your plate, at your level.

Lessons from the bottom

But let's get back to my insights on empathy and to my empathetic theory, which you may find useful. My 25 years of experience working with students and companies in a broad range of complicated domains (from high-performance aerodynamics to the food industry), along with my extensive work in the non-profit sector, have taught me that the technical aspects of problems are almost always easily mastered. What makes or break a project—or a company—is the social dynamics, the performance of small teams that have to figure out what the right thing is and then do it.

I've been practicing the principles of empathetic leadership for a few decades now. In the words of one of my heroes, a woodworking master named Frank Klausz, after all that practice, you get to be a pretty good beginner.

In what follows, I share my beginnings with you.

Learning from not knowing: the story of the Industrial Design Clinic

It all started out simply enough. I loved both teaching engineering and making students laugh, a combination that resulted in a lot of students signing up for my classes. On top of that, I had, in that same time frame, sworn my own oath to make my students far more work-ready than I perceived them to be. This is what the public says it wants, of course, along with the students. And while the time frame for the beginning of my own transformation was around 25 years ago, I thought I knew how it all worked. I was wrong.

What I did know at that time was how to respond to external cues. I read widely on trends in education. And though my teaching evaluations, within the standard lecture format, were always stellar, I knew there had to be something to the whole Problem-Based Learning that was being pioneered in schools like Harvey Mudd College, one of the preeminent undergraduate education institutions of the time. I wanted my program to be like theirs. Though honestly, I had no real idea exactly what *that* was, other than a surface-level understanding of students working with industry.

I was around seven or eight years into my career and had at least some graduates of our program that I communicated with out in industry. With the intent of finding projects for current students, I contacted a few of them and rounded up a couple of industry-based problems for students to tackle. We laid out the scope of the problems, as well as a few nebulous goals, with people in the companies involved, and I set the students to work. I was giving the students what they wanted— "real world" projects that might help them get jobs and that provided relevance, whatever that really meant.

All of these early projects were failures—or at least failures from the perspective of the students making meaningful progress on any of the stated problems. However, expectations of student performances—even graduating engineering seniors—were, and for the most part remain, pitifully low, and no one complained. My stellar reputation as a funny and caring professor remained unblemished, and I accepted my students' failures magnanimously. "They're only students," I would say. My initial industrial partners would solemnly nod their heads. "Those bright young minds," they would say. "They're so theoretical." We had made a change, we thought. Failure was to be expected. And didn't people learn the most from failure, after all?

Training the novices to deliver

It took an out-of-the-blue call from Les, an older alumnus and a plant engineer at a large oil refinery on the west side of Washington state, to shake things up. He had heard what I was doing with the students and wanted to participate. Fine, I said. He wanted me to visit his facility. Fine, I said.

So I piled into a university motor pool vehicle, and drove across the state, from Pullman to Bellingham. I met Les in his office. We suited up for a tour of the refinery. I had worked in a steel mill between my undergraduate and graduate degrees, and wearing green, flame-retardant clothing was *de rigueur* during that phase of my life. We visited the large coking furnace, where the sludge that is left over from the lighter crude refining process is converted to high value coal for use in industrial applications. We returned to his office and sat down to talk.

"I want to give you a project, Chuck" Les said. Fine, I said.

"I don't think you understand," Les said. "I want to pay you for it." I gulped. Students working on something for pay? With me as the primary point of responsibility? Failure was pre-ordained—or so I thought. That wasn't worth paying money for.

Then came the words I was dreading the most. "I'll expect you to get this done." Completion? With those Bright Young Minds?

"I want you to try this," Les said. "Of course, I'll help you."

And we did it—the first of a series of more than 15 projects. All were completed, by the students, certainly with varying degrees of excellence, but all *were* excellent. The initial projects led to a teaching fellowship provided by the main maintenance engineer at my university, also an alum, who bolstered the professional practice the students and I executed. And I finally learned something about successful design practice myself. My background had been in nonlinear dynamics for my Ph.D.—I had been one of the original researchers linking a then-esoteric field of geometry, called fractals, to complex system theory—and to say I was modestly ignorant of contemporary design practice would be an understatement.

What was exceptional, though, with the script that Les and I established, was that the success rate was so high. With all the students in the senior capstone class, the success rate was nigh on 100%. And the projects weren't easy, either.

The students aligned their efforts with a well-defined two-step protocol that involved an extensive customer visit with plenty of interviews followed by the development of a specification for the work to be done; both steps were handled by the students themselves. They typically generated multiple options, and with the assistance of refinery engineers, down-selected and detailed out the solution that would be implemented. For those familiar with contemporary design practice, this will all seem very familiar. But in the mid '90s, this was the equivalent of the dark side of the moon—especially for student groups. There was no term that I was aware of (not that I was particularly aware) like "Design Thinking." (Following a script similar to the two-step protocol with projects for other clients that I had acquired proved successful as well. We charged money, and I enjoyed some of the benefit of having a well-funded program.)

Circle of Treats/Skin in the Game?

As a professor, I immediately started theorizing on the reasons for the spectacular success of the student projects. Looking from the outside, one could postulate various reasons—a trained professional was simultaneously mentoring and supervising both a professor and a group of students. The professor (me!) had a guilt complex and was used to hovering over students to make sure the work got done. Students might be irresponsible, but there were enough adults in the room giving orders to make sure the results were obtained.

In addition to theorizing, I also started questioning the script for success early on. While the first few projects might have had me hovering, I quickly realized this wasn't necessary. I got used to the idea that I should go out and find more work, and shill appropriately, and I became more involved in the execution of other duties. As I probed the system, it was clear that the script that Les and I had jointly developed was holding up well. Students were happy, and so was I. Post-mortem reviews of projects were always positive, and that was a good thing. No one wants to have a meeting with a sponsor of student activities and face the burden of negativity or failure.

I gave the program a name—the Industrial Design Clinic (IDC)—which was more a testament to my own ignorance of what was commonly viewed as "industrial design" than anything else. But the name stuck. And the work kept getting done, with an increasingly varied set of partners, and a broader spectrum of projects.

I developed a transactional theory of why the IDC functioned as well as it did. There were three major partners—the corporation sponsoring the project, the students and myself—and everyone got something that meant something to them, and everyone had something to lose. I called it "Circle of Treats/Skin in the Game." My development partners loved it—it was an easy-to-understand concept that they could help me sell. And I believed it as well. Perfect. *Homo economicus* in a nutshell.

Except it wasn't. Transactional models of human interaction presume self-interest is the primary driver in everything. And while that might be popular in economic theory, it never matched with my experience. Plus, lots of transactions in our lives go south. The kids roll their eyes and do exactly what we told them not to, we're late to the meeting and miss our big chance, and that super-cool coat the salesclerk flattered us into buying never really fit properly. But the model

helped get more projects, and made more students happy, and generated more revenue. What's not to like? But more importantly, why reflect when things are going well?

During that time in my life, my marriage started to fail, big time. My wife was in the process of leaving me, and she was taking our two young sons with her. I was a mess. I went into my classroom, where I had supposedly been conscientiously mentoring students and guarding project outcomes. "I'm a mess," I told my students. "I can't do anything." My students looked at me with deep compassion. It was the end of the semester, and projects had to be presented, and deliverables shipped. "Don't worry, Dr. Chuck," they told me. "We've got this." And they had. All the projects got completed on time. Deliverables were shipped.

It's not surprising that crisis drives reflection and can boost personal growth. My marriage notwithstanding, it was at this point that I realized I didn't really understand what I had been doing in the context of the Industrial Design Clinic. My importance in particular project activities, which I had ranked as "high," was actually a relatively non-critical part of success.

At the same time, I started noticing that my real core competence—connecting with students quickly, assessing their actual moods and creating a feeling of safety and sanity in the classroom—was paramount.

I also realized that I had taken certain things for granted, especially initial parts of the script Les and I had created. Things like customer visits, reasonable goals for attainment, and very little failure. Or what made those things possible—high tolerance for divergent outcomes and separating outcomes from the people working on the project. These were just part of our way of being.

Yet those things were the actual secret of my success. My classroom has always had "The High Trust Door," with the expectation that if something isn't working out, you tell me sooner rather than later, as an integral part of the experience. Our student project groups never got far off track because there was honestly no easy way for that to happen. Established collaborative practice assumed everyone wanted to do well, and students were granted the agency to do specific tasks inside the larger design heuristic.

Students in the IDC traveled together, ate meals together, got to know each other. They also had some agency over who they worked with. Those relationships grew out of the "who's wearing tennis shoes as cool as mine" category to "who actually has mastered technical content" types of partnerships. The grounding of relationships was based not just on campus fads, but on the ability to share responsibility.

Another critical starting point with the groups was "no leaders allowed." Prior experience had taught me that students were poor at picking leaders in general, and too often the person looking for the most credit, instead of the one giving the most service, would self-select at the beginning of the process. In the IDC, if you wanted a leadership position among your peers, you had to earn it through passion for that area. It was, perhaps, the first element of emergent behavior I had (accidently) built into the system.

The IDC had also taught me an important, big picture lesson regarding success. Usually, when you do something for the first time, and it is a huge success, especially in motivating people far past what is normally expected of them, the reasons for that success are often obscure and very different from the reasons you believe in at the start. Lying underneath the leaves, on the train track you think you are on, is a third rail that has the real juice.

In the IDC, that real juice was twofold: connection between myself, the students and the customers; and rapid personal development of the students. In short—they developed empathy for others and empathy for themselves. To be certain, there was appropriate scaffolding of processes, and tools were provided along with money for supplies, exploration, and supported travel—all of which helped create our successful outcomes. But the secret sauce was empathy, and its partner, connection.

As for me, during that time, I was also undergoing a fair amount of discovery and personal growth. I realized that there was a multi-dimensional "me," with multiple messages, independent of a single label. Maybe on Monday I'd have to make a tough call on whether a group should move forward with a particular task that they couldn't come to terms with themselves. On Thursday, I might have to remind students of purchasing rules (and enforce them, too). Mid-semester, I was almost always involved with design reviews and getting students to remember project goals. I also constantly reminded students that every person in a group is an individual with something to contribute. And undergirding all of my roles was my promotion to the students of the idea that they were all part of a larger legacy that was the IDC. That sense of identity was the thing that had driven more projects into the IDC, that had resulted in the projects that were available for them.

As we relate, so we think

I also started reading about Spiral Dynamics, the theory of self-similar personal and societal growth that was developed by Clare Graves, Don Beck and Ken Wilber. Spiral Dynamics linked the growth of societies through a series of stages that governed both people and their social structures as they moved up a never-ending ladder. These stages were governed by shared **value sets**, called v-Memes. Different v-Memes create the dynamics of dominant social structures during those stages of development and establish the primary ways people relate to each other.

What's the larger meaning of the spiral? We can only see a certain aspirational distance above our own personal development, but the spiral in Spiral Dynamics is not defined at the top—it is an open-ended construct. As we as a species evolve, there will be other emergent self-organizational and organizational modes above our heads, waiting to be discovered.

Two parts of Spiral Dynamics are super-important. First is the idea that there can be an **orderly progression of values**, that people can start at a point of selfishness and low responsibility and move past that to shared goals and purpose, and a coupling to a higher cause. Second is that **given values are associated with a given social structure**—and the values of that social structure drive the outcomes that people in that social structure want. If you set up an environment—that combination between social structure and governing cultural norms—where it's everyone for themselves, it won't be long until egocentric behavior becomes the norm. If you

set up an environment where empathy is encouraged, and rewards are socialized, you'll get more evolved people who share information more freely and are far more creative.

I began to realize, as I went through my own reflective transition, that the Spiral had been present in all of my own learning stages, especially with the IDC. The legacy of the IDC had established my new tribe. Initially, I believed my authority ran the Clinic. As I grew, I moved through the rule-based stage of transactions with the Circle of Treats. Founding values had established the IDC as a goal-based community, and caring about both outcomes and individual students folded in both Performance/Goal-Based and Communitarian modes.

But it wasn't until I had my own personal crisis that I realized that the pattern was present. Trauma forced me to reflect and to discover the real reason for my success—my empathy with my students, and theirs with me. Empathy opened all of us up to our mutual deep need for personal growth and meaning—and allowed us to participate in that growth and generate meaning.

Conway's Law and neuroscience

After my immediate crisis, more coincidence than conscious direction, I started exploring a variety of theoretical components that I would later incorporate into my growing understanding of empathy. With a young professor, I started exploring network connectivity and its implications for design. He introduced me to Conway's Law, a notable contribution to the design literature that states "the design of a system will map to the social structure that created it." At the time, no one had really considered social network connectivity as anything other than an on/off affair. Either you are connected to someone inside a social network, or not. More complex network analysis only consisted of using more sophisticated mathematics and statistics for understanding solely how connected a network might be, or how its shape might affect a design. Nothing was being said about the quality of the connections, or how connections might have been formed, and the effects they might have.

Around that time, I also discovered the empathy literature. I started with primatologist Frans de Waal's important work on mapping empathy to neural function, then connected with his ideas with both Stephen Porges' work on the polyvagal theory of whole-body empathy (and the important role of the entire nervous system in empathetic response) and Daniel Siegel's work on how the brain processes information when connecting with others.

As a super-connector myself—I'm always trying to get my students jobs and to connect IDC alumni to parts of our program to start collaborations—I realized my experiences had wired my brain for connection. And I started to recognize patterns in the material I was reading. There was not just one source of inspiration for what I might write next. Rather, it was a blending of trends and patterns across the fields of social psychology, personal development, neuroscience, system theory, and my formal training and research in nonlinear mathematics, as well as my growing knowledge of forming successful design groups that uncovered the linkages.

Why do linkages matter? Because linkages—insights and changes in one area—can lead to unexpected ways to change outcomes in other areas. Once such leverage points are uncovered in

systems, the systems flourish. Larger guiding principles and reasoning are then preeminent. I was starting to truly uncover the location and the characteristics of that third rail, the driver of individual and societal behavior, performance, and change. Understanding the basics had yielded chicken-and-egg questions (simple cause and effect) at the beginning. But deeper explorations eventually revealed a far deeper, dynamic, and empathetic braid.

So what does that braid look like? Our theory of Empathetic Evolution has seven main components.
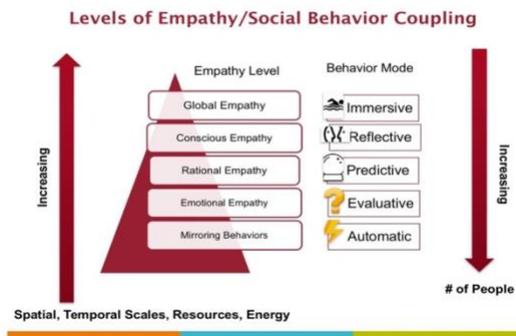
Theory of Empathetic Evolution – The Seven Precepts

Upon intensive reflection, I realized that the power of empathetic connection could be distilled into seven precepts. These seven precepts are generative, meaning that they spin out greater meaning the more they are pondered. The list below is not all-inclusive, but they make a good start. Later on, we'll map the actions that accompany each precept, along with the signals that indicate that the actions are producing the desired results.

1. Empathy rules relationships.

Empathy is a mix of mirroring, emotional affinity, cognitive place-taking, and conscious response. Empathy is both the mechanism and the measure of understanding and synchronizing with each other.

On the shortest time and spatial scales, when we're looking at someone's face, our mirror neurons say "You yawn, I yawn." As we evolve, our emotions match theirs. If they cry, we feel their emotional pain. With further development, we engage in place-taking, which can be as simple as ordering a beverage at the bar for a friend because we think they'll like it. This applies to more complex situations as well, such as blending their higher-level needs with our actions. Next to the top, there is the process of engaging in conscious empathy, where we react to and connect with those who may be very different from us, in ways that influence their mood and mind. A hostage negotiator has to assemble a model of the worldview of someone very different from themselves in order to save the day. And finally, there's global empathy -- that strange, still poorly understood phenomena of the feeling of being connected to large masses of us, together.

Levels of Empathy/Social Behavior Coupling

Empathy Level	Behavior Mode
Global Empathy	Immersive
Conscious Empathy	Reflective
Rational Empathy	Predictive
Emotional Empathy	Evaluative
Mirroring Behaviors	Automatic

Increasing — Spatial, Temporal Scales, Resources, Energy — Increasing — # of People

2. Safety is the foundation of empathy.

For people to open up and connect in meaningful ways, the environment must be safe. As openings expand and connections deepen, higher levels of safety are required.

Companies that cultivate this safety create the conditions for empathetic connections that are, in turn, the foundation for an environment that is rich with the creativity and signals (i.e., constantly updated information) that are present in every complex, thriving organization.

3. Empathy is a function of structure.

The organizational structure, as depicted by the company org. chart, can be the starting point for every employee's empathetic growth. The org. chart, almost always a hierarchical tree, explicitly declares, through titles, who must talk to whom. If your org. chart is limiting, and your culture says "don't talk to the person in the cubicle next door," don't expect much personal development, creativity or free thinking while people keep their heads down.

If your org. chart only represents titles and reporting guidelines, and people generate their own connections, empathy can thrive, and a goals-and-needs organizational network can emerge. Even when a social structure is a typical hierarchical stack, if it is surrounded by a culture that values different people for those differences and encourages its members to connect outside their silos, with time a more complex organization will evolve.

Over time, the Principle of Reinforcement—that organizational behavior influences people to create coherent behavior, and in return, people will, in a self-similar fashion, influence their organization in a feedback loop—will dominate.

In large organizations, the C-suite has to work to hear the voices from the bottom. Jeff Bezos at Amazon spends time in customer returns. But you're not off the hook simply holding meetings and asking for input unless employees can see a result from the risk they take when speaking out. Recognition matters, and when done

Hierarchies for refinement and reliability
Low Empathy

Loosely assembled, freely mixing creative groups
High Empathy

appropriately (focused more toward teams than individuals) can facilitate empathetic growth. Don't forget—talk is cheap. Shared experience, though time-consuming, is a far better silo-buster for creating cross-disciplinary collaboration.
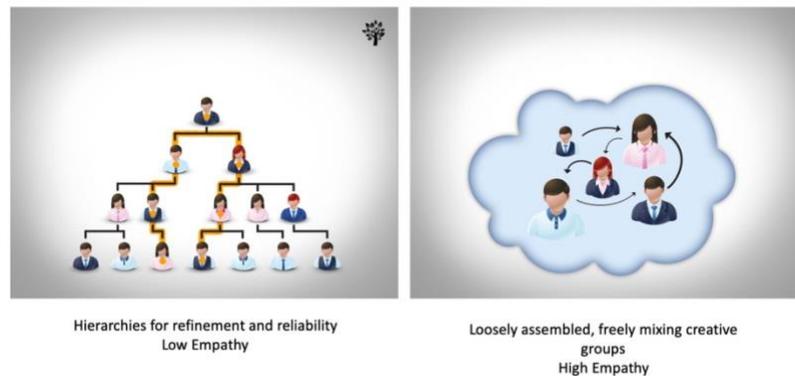
During transitions from a low-empathy to a high-empathy organization, leadership does matter. Leaders must demonstrate humility by remaining quiet and practicing servant leadership, while simultaneously not letting the loudest person in the room dominate those conversations. It's a tricky balance.

4. Empathy catalyzes synergy.

How you set up your organizational chart is THE critical factor in how knowledge and synergies in design will be created. Using Conway's Law, one can predict *a priori* what the functional form of a design will be. It matters who talks to who.

Creativity in design also directly depends on social structure. If you have a hierarchical social structure that prioritizes rules, don't expect a lot of creativity. Rules are meant to be followed. If you're running a Skunkworks, people have to mix and empathize. Or you'll get skunked.

Inside the social structure, empathy is the dynamic that creates synergies in design. While empathy is always valuable, even within the simplest social structures—people that connect are much more likely to transfer correct information to each other—it is essential in creative enterprises. One cannot get significant synergies between disciplines or fields into a product without shared understanding between the two parties doing the synergizing. Each has to understand the other's thoughts and feel the other's pain.

Design, especially on the larger system level, without direct intervention, will mimic the org. chart. You'll never see engines embodied inside the fuselage of an aircraft until you have the engine people talking to the fuselage people. If there's no opportunity for that dialogue, the engine people will hang their turbojets off the wing. Why? It's where the communication channel in the organization already is.

5. High levels of empathy handle complexity well.

For us to handle complexity well, and not be overwhelmed by what is inherent in any living, thriving organization or mission, empathy has to be well developed and intentionally practiced.

Complexity is nonlinear, networked, stochastic, and multiscale. Empathy allows the operational structures to be feedback-control based, rather than open-loop-control based. As a result, prediction becomes less important since the very structure now embraces robust adaptivity and self-correction.

An environment of rich signals, freely communicated, enabled and sustained by the practice of higher levels of empathy, is the foundation for making such an organizational system workable.

6. Empathy governs tool selection.

Levels of empathy govern how and what tools are used to unleash innovation. Helping organizations find solution pathways for their problems is one of the primary tasks of leadership. Solutions take the form of heuristics—step-by-step processes, with varying levels of independent choice embedded in the given steps. Some steps you just have to execute. Other steps along the path, your choice and decisions alter the outcome.

The heuristics, often lumped under "Design Thinking," depend heavily on the level of connection between people, the agency they have, and the social landscape that determines how they're connected.

Analysis of different design methodologies reveals the amount of empathy, and agency, of the participants. Is an individual engaged with a tool for designing shelving brackets, where algorithms for stress analysis are already coded into the software, and the only information flow is the location of holes? A modest amount of empathy is required, mostly related to securing customer requirements. Rule-following and form-filling may suffice.

What about designing a solution for a different culture, with a very different stratification of income levels? Such a project may require integration inside that culture for a period of time, and an ability to put aside preconceptions about what has inherent value. Empathy interviews and customer research are required to make the right choices further along in the process, and participatory design becomes even more facilitative. The designer must sublimate ego and bias and get out of the way of the customer truly participating in the creation. This mode of simply shaping the container for design can be very challenging, even for the skilled and celebrated designer.

Not all design requires high levels of empathy. For example, improvement of performance of a rocket engine may involve engagement with experts in metallurgy or other advanced materials. Such authority-driven design may be very sophisticated, and complicated, but not necessarily complex. Laws of physics govern the process. Your opinion of the color of the metal required does not matter.

Agile design cycles for software, with "test, rinse, repeat" as the dominant direction, often do require increasing empathy, as team members need to share information, along with exchanging the interlocked code that each member may generate to quickly integrate applications and architect APIs (application programming interfaces—the glue of modern software).

There is no firm disciplinary division between design problems that require empathy, and those that do not. The real deciding factor is the need for integration of shared knowledge.

7. Different empathy levels are tied to different values.

Levels of empathy are tied to different values, and thus to the ability to wrestle with different levels of complexity, emergence, ambiguity and time. As we proceed up the empathetic evolutionary scale, values change. Survival values may mean fighting your brother over that glass of water. Tribal values affirm the same privileges to everyone in your in-group, and likely involve sharing that water within your tribe. Performance-based values mean sharing water with team members in an optimal way. Communitarian values involve recognizing everyone's individual needs and identities, and sharing water with people with shared norms, but different needs. Global holistic values create concern for people running out of water around the world.

Different values emerge from the different social physics of different social structures. These emergent value sets exist to stabilize those social structures. What kind of jersey everyone wears on game day may matter to your tribe. Obedience to authority-driven hierarchy requires passivity and a lack of agency in participants. You do what you are told, and even more profoundly, believe what the boss says is the truth. Not always bad, unless there's a fire and the boss is the only one that knows where the exits are. Communitarian values require recognizing people as

individuals, possessing the empathy to divine the differences between the individuals, and responding appropriately. Reflective awareness, and the self-empathy it requires, means a divorce between self and egocentric behavior, and a greater attempt at empathizing with others to understand their circumstances independent of your own.

Different value sets held by different individuals or groups can create conflict, with people talking past each other and not comprehending meaning. Temporal and spatial scales are often the source of this type of problem. If you ask a low-empathy authoritarian what to do about homeless people, they might say "buy them a bus ticket and get them out of here!" Asking a communitarian what to do will likely get you a list of solutions, all of which take serious time—finding them a place to live, getting them an education.

Solutions will also reflect the knowledge structure that inherently springs from the social structure. Authoritarians are dichotomous thinkers, with "good people, bad people" anchoring their thought processes. A communitarian maintains a connection to the person with the problem: "I see them as a successful member of the community." With a communitarian, many different fates, a product of multi-solution thinking, are possible.

The insightful leader will realize the necessity of multiple temporal and spatial scales in solving larger problems by cleverly leveraging the inherent characteristics of different value sets. By using empathetic foresight, they'll develop multi-pronged approaches, pragmatically telling people what to fix in the short run, while buying time for the development of evolutionary approaches to apply to the system over longer timescales.

The power of Empathetic Leadership

Once leaders absorb these precepts, they'll be able to open a window into newer design and business practices, like Agile. Consider the Agile Manifesto:

> We are uncovering better ways of developing
> software by doing it and helping others do it.
> Through this work we have come to value:
> Individuals and interactions over processes and tools
> Working software over comprehensive documentation
> Customer collaboration over contract negotiation
> Responding to change over following a plan
> That is, while there is value in the items on
> the right, we value the items on the left more.

The high quality, high coherence interactions outlined in this manifesto require individuals to be empathetically developed.

Working software means that validity—a necessary byproduct of a functioning, empathetic social structure—matters, and is grounded through a social network that will feed back the results of efforts as the primary input. The software has to work.

Customer collaboration means actually listening to customers, and validating their experiences, as well as folding them into the co-creation process whenever reasonably possible. True collaboration can't be done without empathy.

And finally, responding to change is what flexible, reconfigurable social structures do when change happens. Since the enlightened manager realizes that social structure is tied to solution configuration, the organization must also change and adapt. And that's made far easier in a trusting, open empathetic network, than in one pinned down with rigid titles.

The bottom line? Advanced business practices in a complex world demand both empathetic leadership and evolved team members.

Just look at Agile as an example.

It's not enough just to list the Seven Precepts—they have to be converted into actions that can be applied. And while exact measurement of the growth of empathy can be very challenging (a field deserving of much more exploration!), there are signals you can sense to see if you are making progress on your journey.

Translating the Seven Precepts into Action

1. Empathy rules relationships.

Actions for increasing empathy and connection in your organization:

- Recognize that empathy must be practiced. Model the behavior you wish to see in your employees, with those lower on the org. chart as well as with peers.

- Address empathy directly as a driver of company operations. Do not penalize employees for talking outside the org. chart. Create "shared passion" time and observe how employees use it.

- Have employees in the "back end" of the company participate appropriately in customer contact. Don't wall off the back from the front. Teach "business social" as needed.

- Experiment with active listening and dialogue exercises to increase your reception and feedback skills, first with folks you trust/care for, and then with people you do not interact with on a regular basis. Many tools and techniques get called out in Peter Senge's Fifth Discipline Fieldbook. Leverage diversity in these exercises to sharpen the sword.

- Increasing empathy with others requires a higher level of personal insight. Some knowledge of the mental models that are shaping your thinking and why will be

necessary. Spending time "inside" through meditation, therapy or personal coaching sessions can help open up your understanding of these models and experiences.

Signals for observing both level of connection and improvement:

- Level of participation at trainings as well as receptivity.

- Use of validation and of people's shared projects.

- Spreading involvement in projects outside of typical silos.

- Active use of basic empathy interviews, even in small meetings.

- Number of opportunities for back-end employees to interact with customers and the creation of new opportunities.

- Informal coaching of back-end employees by front-end employees.

- Voicing of concern for appropriate scheduling because of work burden of parties outside one's own department

- Ability of various teams to express appreciation and actionable incorporation of non-positive feedback, as illustrated by actions with peers or stakeholders

2. Safety is the foundation of empathy.

Actions for both ensuring safety in your environment and increasing it:

- Ensure transparent and honest communication of information from the bottom to the top of the organization.

- Establish a culture of predictability and fairness of power. Employees know that tough decisions are sometimes a necessity. But one "Night of the Long Knives" can destroy feelings of safety among your employees for years to come.

- Establish yourself co-equally as a human being and a professional. One of the founders of the field of sociology, Ferdinand Tönnies, defined these qualities using two German words—Gemeinschaft and Gesellschaft—for community roles and formal roles, respectively. This means letting people connect with you even when you're having a bad day.

- Master the ability to release petty resentments—don't let them grow into grudges. Employees know when you carry unresolved feelings—it is one of the earliest empathetic modes we, as humans, master.

- Understand and be aware of body language—it is one of the first things people assess when deciding if people and situations are safe.

- Designate a facilitator (who is not in a formal leadership role) to set up "safe" spaces and containers to allow for experiments and open discussions,

Signals for monitoring safety:

- Notice silence or continued conversation as you walk down the hall.

- Facilitate openness during chat sessions by dividing into small functional groups, with no more than five people in the room. Are the reasons behind suggested changes valid? Can the the changes be implemented?

- How many times do you openly confide in others about a rough patch in your existence? Not talking inappropriate disclosure here—just sincere irony with a smile.

- How quick are you to forgive past grievances? Do you have a mental process to settle them?

- Reflect on how many times you scan a room when giving a speech. How many people can you read from their body language? What is your practice to improve?

- Have you or your group discussed ways to safely exit a situation, especially those involving experiments and partnerships?

- Is it accepted practice to run experiments before you execute new strategy?

- Do you and your teams take time to address risks using formalized practices like ROAM (Resolved, Owned, Accepted and Mitigated)?

3. Empathy is a function of structure.

Actions for review and improvement of the structure of your organization:

- Flatten, flatten, flatten. While it is impossible in a large organization to have a completely flat organization, factors like Dunbar's Number, which show human grouping maxes out around 150 people, matter. But the fewer levels people who need to communicate have to jump, the better off they are.

- Consider built architecture. Does your building office arrangement match a rigid hierarchy, with a special key required to get to the C-Suite? How many reception areas are between you and your people? Some of this is/isn't necessary. Critically evaluate.

- Consider the book *Make Space: How to Set the Stage for Creative Collaboration,* by Scott Dourley et. al., as a way to develop spaces that support more informal interactions across the hierarchy.

- Your org. chart matters. How is this reflected in the way people meet each other? Create temporal and spatial variations that interrupt the natural tendency toward hierarchy, while making sense in terms of workflow from a business perspective. Nothing wrong with a quarterly review or a yearly retreat. But impromptu events can jog different understandings.

- If people can form their own empathetic, needs- and goals-based relationships, consider plotting the topology of this occasionally so you can understand your actual functional organization structure. Who needs to connect that really isn't? How is this affecting your product architecture?

- Are people rewarded as individuals or teams? People are assigned to an organization as an individual. But instead of giving individual bonuses, distribute them on as flat a basis as you can, recognizing that different people across an organization can often go unrecognized. Microsoft's famous stack ranking dismantled their organization from #1 in the world to near-chaos, through promoting anti-empathetic modes.

Signals for insight on your organizational structure:

- First the obvious—how many levels are in your organization? What percentage of the workforce is made up of managers managing managers?

- Where is your office located? Close to the front, or back in the corner? Windows facing the factory floor, or windows with the best view?

- How many square feet per person for privacy? How many for meetings? How many for an office niche? Do these spaces correlate to status, or duties?

- Do you know your custodian's name?

- How many people and levels do you involve in your quarterly planning meetings? Are those meeting collaborative or are they just a time to show up and throw up a never-ending stream of PowerPoint slides.

- How many incentives offered in your compensation plan work for or against teamwork? How many could work at cross-purposes with, or against, integrated product performance?

- What percentage of employees own what percentage of stock in the company? Do people at the bottom of the company—often first line value providers—have a chance to be rewarded for their contributions and maintain a decent life for their families?

4. Empathy catalyzes synergy.

Actions to affect your organization's creativity and output:

- Understanding the demands of design—refinement, customer adaptation, fundamental validity—help us pick the social structure that functionally fits the requirement we are satisfying. Create hierarchies for refinement, loosely assembled, freely mixing groups for creativity, and outward-facing connectors for interaction with the customer. Cultivate liaison individuals who can translate across rigid and fluid social structures, in both directions, to manage conflict and inherent competitiveness.

- Understand that social structure can and must shift as the product moves through its lifecycle. Tools like NASA's Technology Readiness Levels or Horizon 1,2,3 can be instrumental in making architectural decisions about your organization.

- Use separate discovery teams to run the customer and product development processes on new Horizon 3 (emerging markets) products and services. Be very mindful of the care needed to move Horizon 2 (rapidly growing) products and acquisitions into the Horizon 1 (mature) organization. These structures are different and will generate inter-organizational conflict if not managed with appropriate liaisons.

- If you want a totally different product than your current line, don't just consider how to set up your own organization, but how you interface customers into the new product development cycle. The customer's social structure matters as well. No better example than the contrast between the customer-centric approach that produced the Boeing 777, arguably the most successful airliner of all time, and the low-cost, supply-chain-centered Boeing 787. The first is a consistent profit generator for Boeing. The second may never recoup its early losses.

Signals to check both status and improvement:

- Have you, as a leader, done a review based on matching the appropriate social structure to the phase of design? Notice that Horizon 3 (discovery), Horizon 2 (transition) and Horizon 1 (optimization/operations) leadership needs are very different.

- How many outward-looking leaders are involved during customer evaluation?

- Topology of the design matters. Does the desired topology of the design map to the org. chart of your organization?

- What is the role of the customer in your design organization? Does it map appropriately to what can be meaningful input? Seat interiors may involve extensive interfacing with a number of people, from ergonomics experts to a range of customers of various sizes, including the differently abled, and even children. High temperature-resistant metal alloys will require an expert hierarchy, with a validation and test oversight organization.

- Does the system boundary for the product map the organizational reach of the people on the project? With a new, game-changing product, do you have people comfortable with unknowns on your team, capable of running experiments to determine the limitations of your organization's knowledge?

5. Empathy handles complexity well.

Actions for evolving your people:

- Explain to your design staff that understanding nuance is cultivated through their immersion in different environments. Place them in diverse environments with folks that don't look or think like them.

- Hire folks with both racial/ethnic diversity and cognitive diversity. Processing interactions with people who don't look or think like you, and being forced to build synergies, evolves empathy. We are aware of racial differences. We are less aware of cognitive differences. More empathetic people, when trained to understand the variation in opinion, will pull upward on everyone's personal evolution.

- Reward team-based evolution. Groups that have not just found new markets, but sought out living, breathing constituents in those markets, should be recognized.

- Build empathy development skills into your discovery process, especially for Horizon 3 teams (for external customers), and Horizon 2 teams (for internal operations teams).

- Take on a reasonable subset of challenging projects with larger unknowns and unexplored spaces, and keep subgroup size small, so people can really get to know each other. Though they may fail, they will enrich other efforts in the company through the follow-on post-mortems.

- Encourage experiments that will give insight into poorly known factors that potentially have multiple outcomes. Spread the experiences with these types of experiments broadly in the company. Doing so will also increase the safety people feel, and empathy will flow.

Signals for gauging receptivity to and facilitation of complexity management:

- When you look out across your organization, does everyone look the same? When I worked with Chevrolet—in Parma, OH, 40 years ago—everyone in the room sat at a drafting table, wearing a white shirt and a black tie. They were all white males.

- When you're in small group meetings, does everyone think the same? Group-think all the time?

- Who represents company/institutional memory, and who presents experimental data?

- How many people in the room are good at combining multiple inputs and coming up with new ideas? How many people can come up with multiple, viable modes for solving a particular problem?

- How many awards do you give for team-based servant leadership? How many awards for bridging leadership between Horizon 1 and 3 teams?

- Do you have an award for mutual managerial collaboration, or do you promote a "star system"? Is it for people, or for inherent silos?

- People often work well in small teams of close associates. Do you have venues for merging small groups to work through interface issues?

- Cognitive diversity can often happen in the context of discipline, especially if those differentiated are willing to lean into each other's disciplines. What's your mechanism for spotting your engineers interested in psychology? Or vice-versa?

- Can your leaders make hard decisions, as well as gather input from diverse audiences? What is their empathetic leadership range?

- How many employees participate in volunteer activity that is meaningful within their disciplinary specialization? Nothing wrong with roadside cleanup, but actually applying professional insights in the context of different problems should be a focus. How do these employees represent these charitable activities to each other?

- Do you share persona models publicly for your customer segment roles. Do your customer segment roles describe simple demographic attributes or more sophisticated psychographic understandings of context, situations and systems of operation?

6. Empathy governs tool selection.

Actions for tool matching:

- Understand the basics of adult development, and match empathy partners across different age categories. Intrinsic mentorship will arise, of course; this is not knocking mentorship, but rather opening up the door so younger and older members of an organization can see the deep value of each other's insights and vital role of an empathetic leader. Organic mentorship and insight-enabled mentorship are both important.

- Understand the spatial and time scales and the amount of agency necessary for any project you assign with a given heuristic to a person. Make sure their locus of responsibility and their level of preparation is matched not just to the outcome, but to the process that will deliver the outcome.

- Active training in design processes, if done properly, can increase your employees' ability to handle more complex design heuristics. Fluency in any technique matters. Plus, community built around specific practices aids cross-organizational debugging and learning.

Signals for success of your efforts:

- Do you consider where the employee you are creating now will be working in your organization in a few years' time?

- How do you create opportunities for younger employees to develop agency even with smaller projects?

- Are there potentials for training employees in various design techniques, like at Lean/Agile conferences? How are these employees empowered to share their knowledge when they return to the workplace?

7. Different empathy levels are tied to different values.

Actions for understanding and managing different values:

- Sharing and contrasting leadership experience is a valuable tool for meshing and upgrading the value spectrum across your organization. Form a discussion group with other leadership peers to discuss both personal value sets and organizational value sets, and how to synergize them. Understanding the value-driven needs of your security folks can upgrade everyone's experience, for example. Security can become more communitarian, as opposed to authoritarian, and more people can physically feel safe, upgrading empathy.

- When conflict occurs, listen empathetically for time and spatial scale differences between the conflicting parties. Often, individuals talk past each other because the scale of their different solutions involve their perceived level of responsibility and locus of control, and do not match. Paying attention to how people process the unknown can open the door to shared resolution.

- Familiarize yourself with the social structures that map to different value sets. Though sometimes you may swim upstream and work against the information physics of a given social structure, realize that this is unsustainable. Use emergence—setting up the boundary conditions so people naturally do the desired action—whenever possible.

Signals for gauging the success of different value interpretations:

- How do people describe themselves and their key motivators when asked to share about themselves? How does this match with your perception? What is their level of self-awareness?

- Do you have the ability to map their professed indicators to value sets?

- Who do you go to for short-term advice? Long-term advice? How does this person explain their perspective? When you engage in active listening, how do you explain their perspectives back to them?

- When you settle disputes among employees, how many business cycles differentiate their concerns? Do you know who the long-term thinkers are in your organization? If you were asked to tell stories about the people you directly supervise, how would you explain value generation preferences across this set of personal responsibility?

- How do you conduct an analysis of your org. chart's social structure? Do you look at the graphic, or do you add a layer of analysis based on who actually talks to whom?

- How often do you engage in Poka-Yoke activities between units in an organization?

- How often do you schedule activities with both employees and leaders that build trust and emergently lead to greater responsibility? Do your leaders understand emergence, or are they still fixated on command-and-control for most organizational direction?

- How many sidebars (an employee stock ownership program, for example) have you implemented so employees and your company interest are aligned?

All of these empathy-related actions matter because complexity demands we serve a different evolutionary mistress, and empathy shows us the path forward in our increasingly complex world.

At any given time, there are flows and ebbs of information coming together from all parts of the world, with many different timescales, and from many different disciplines. That means the requirements for how we think, and how we educate people to think, must also fundamentally change.

We must cultivate both the awareness of how information is generated from different perspectives and systems and the reflective ability to realize what we don't know. Such awareness and reflection dampen the urge to react with "solutions" that just exacerbate the problem. Where are people really coming from? And how do we really know? Insights into the answers to these two questions are most available to us through the development of our empathy—for others, and for ourselves.

The seven precepts of empathetic evolution outlined here can inform the structure of our solutions. They also help us wrestle with the ambiguity of the system dynamics that are needed for changing our social systems. The personal development that following these precepts promotes will, in the short term, enable better organizational performance. But applied consistently, over the long term, these precepts will also create surprising benefits and spillover,

to the larger community and to the planet. People who operate according to these precepts will also be the ones who create shared equity and understanding with all humans and harmony with the natural systems that sustain our planet. They will be the ones who will figure out what the right thing is and the ones who will do it.

Biography

Chuck is a professor in mechanical engineering, and Director of the Industrial Design Clinic at Washington State University, Pullman, WA. For more biographical information, see his LinkedIn profile. He has done research in areas as diverse as the fundamentals of chaos theory, wildland fire science, and creating high-performance pedagogical environments, and has partnered with over 85 corporate clients over the course of 32 years as a professor.