

Tacit vs. Explicit Knowledge: Why one of them is indefinable yet so valuable.

Riding a bike on a nice warm spring day can be quite enjoyable. But it may not have started that way. Anyone who has taught a child how to ride a bike knows about the anxiety, tension, nervousness and excitement involved with earning one's first taste of freedom on wheels.

The lesson begins with instruction on holding the handlebars steady, then placing one foot on one pedal while pushing off with the other foot. If the child is overly anxious, then a reassuring hand on the seat while jogging alongside the youngster is definitely necessary – the young trainee all the while frantically jiggling the handlebars and rotating the pedals like a frenetic circus clown.

Eventually, the child gets the hang of it and begins to gain confidence and skill, sloughing off fear, discomfort and uncertainty. Another new experience accomplished. Another life lesson learned. On to the next challenge!

What's going on here? Well, other than narrating a bike-learning lesson, there is a critical transfer of tacit knowledge from the adult to the child. **Tacit knowledge is the kind of knowledge that is difficult to transfer by writing it down or verbalizing it.** You know – the knowledge that can't be learned from a book or through a digital device.

On the other hand, explicit knowledge such as "Washington, D.C. is the capital of the United States" can be written down, transmitted and understood.

Tacit knowledge is learned by doing, by experience, through teaching and coaching. Riding a bike, hitting a baseball, driving a car or knitting a sweater can't be fully mastered without obtaining the experience in learning these new skills.

In centuries past, blacksmithing, coopering, glassblowing, weaving and masonry were trades sometimes requiring many years of apprenticeship under the careful watch and tutelage of master guild craftsmen.

Many modern-day skills require that same transference of tacit knowledge. The digital world of rendering graphic design, structuring 3D printing, designing robotics and codifying artificial intelligence are the latest skills requiring tacit knowledge.

Money management has now expanded to much greater segments of society – no longer the sole realm of the carriage trade. The days of living hand-to-mouth have morphed into building wealth by first learning the fundamentals of money, along with the explicit knowledge of money denominations, checking/savings accounts, stocks, bonds, real estate and much more.

The very important money habit of "save first and spend second" is not necessarily intuitive. Once learned, a new question arises: What do you do with the accumulated money? Is it for investing, for retirement, for saving, for buying an auto or home or big-screen television? For emergencies, peace of mind, or helping out a family or friend?

Many possibilities! Some good, some so-so, some bad. But for whom? Well, it depends on individuals' particular needs, wants, and what are sound money principles given their specific circumstances.

A lot of tacit knowledge here!

Of course this conversation is not just about money. There is so much more. The fact is, we choose what we focus on partly because of our likes and dislikes, our own particular skills, knowledge and expertise that makes each of us unique.



"First of all, forget everything you learned in obedience school."

CartoonCollections.com

Tacit and explicit knowledge have been around since the beginning of mankind. **What has changed is how we have adapted to the advances mankind has made especially with technology.**

The Industrial Revolution that began in the late 18th century spawned a massive rural-population transition from an agrarian-based economy to an industrial economy. In the late 20th century the burgeoning information economy began to transition, along with the vibrant service sector, into a more tacit-knowledge, skilled-based society.

That may seem an unusual way to record a shift in society. Let me explain. We have seen the

commoditization of many aspects of the workplace over the past half-century. Auto assembly line workers have been increasingly replaced by robots. In fact, the United States went through 30-plus years of manufacturing base erosion until about a decade ago when a reversal began.

We started to see U.S. manufacturing rebound in a very different way. **The on-shoring of jobs by and large blossomed when manufacturing jobs began requiring specialized skilled labor – the kind of skilled labor requiring tacit knowledge.**

One Chicago business owner I know told me a story. He had noticed a customer's discontinuation of a complicated piece of hydraulic machinery. At the same time, there was a significant uptick in component parts orders from the same customer for the same piece of machinery.

So he met with his longtime customer to find out what was going on. His embarrassed customer informed him that he had started to order the equipment from China. It was less expensive through Chinese manufacturers.

However, reverse engineering was not good enough. The machinery continually broke down, requiring constant repairs – hence the larger order of component parts. Enough was enough! The customer informed him he would start ordering the machinery from him again.

What happened, and continues to happen, is the inability of others to reverse engineer, to gain the tacit knowledge that is imperative for precisely constructing complicated equipment. – Machinery that requires the tacit knowledge of the equipment's designer, operator, artist and craftsman.

On-shoring is a great trend. **Tacit knowledge is hard to replicate through reverse engineering, a manual, a flow chart, or other explicit device.**

Recently, I attended a seminar where one of the speakers, Dr. Kai-Fu Lee, a Taiwanese venture capitalist and technology expert, presented this four quadrant graphic to illustrate where jobs are being commoditized.



Replacing the words “Human Compassion” and “Complex” with tacit knowledge, and “Routine” and “No Human Compassion” with explicit knowledge, helps explain where jobs are being created and destroyed.

What was old is new again. The seven-year training program for blacksmiths and coopers has been replaced by CEOs, coaches, caregivers and specialized professionals in many fields.

There continues to be a shift away from anything that is predictable and can be systemized physically or digitally.

The elimination of explicit-knowledge jobs has been going on since the 18th century, albeit more recently at a feverish pace. The rise of tacit-knowledge applications continues to mount while more and more explicit-knowledge-related jobs are in the crosshairs of progress.

We have seen these changes recently in the consulting field. Many forms of consulting are being commoditized. Routine transaction-based activities have seen a drop in pricing – in some cases fees being eliminated altogether.

In the investment arena, 401(k)s, mutual funds and exchange-traded funds are now measured by

single digit basis points (one basis point is one-hundredth of one percent). In the 1980s, a 2% to 3% cost was acceptable. That’s around a 95% drop in cost!

These kinds of price cuts have been happening everywhere. Can you still remember when it cost one dollar per minute to make a long-distance phone call, or when an auto-based cell phone (called car phones at the time) cost \$1 to \$2 per minute and cost over \$3,000 to buy and install?

Think of all the job losses in an auto-based car phone: the component-parts manufacturers, the installers, the specialized antennas, receiver boxes, cabling, and handset cords and chargers.

This commoditization is happening with consulting. Dan Sullivan, founder and president of The Strategic Coach Inc., has posited that Peter Drucker, the famous management consultant, was to consulting in the 20th century what coaching is to the 21st century.

Bit by bit, slowly and inexorably, consulting is being commoditized. The telling, teaching and transacting of the past century is being replaced by smart apps, YouTube videos, and live and recorded video coaching.

Tacit knowledge – that higher level experiential knowledge that is difficult to define, document, codify and express – is still the domain of the human being. The fear that artificial intelligence will dominate humans is overblown when it comes to this unique, non-programmable knowledge.

We know more than we can tell.

- MICHAEL POLANYI

One of the most amazing sports statistics is UCLA coach John Wooden’s NCAA basketball championship record. In a span of 12 years from 1964 to 1975, the UCLA Bruins won 10 NCAA

Final Four Championships. Amazing!

What's intriguing is what Coach Wooden did for his first team practice each year. He spent the first lesson on how to put on socks, fold in flaps, and double-tie shoes. He didn't want his players to form blisters, sprain ankles, or trip over shoelaces. – Certainly an explicit-knowledge activity. This very basic skill enabled the more complicated task of playing championship basketball as an individual and a team.

In the 1984 martial arts movie, "The Karate Kid," Noriyuki "Pat" Morita plays Mr. Miyagi who coaches Ralph Macchio as Daniel on how to learn karate.

The now famous lines of "wax-on, wax-off" and "up, down; side, side" illustrate teaching Daniel how to do basic karate movements by sweeping his arms, analogous to his waxing a car and painting a fence.

After an exhaustive few days of this Daniel wants to know when he will learn karate. But Mr. Miyagi as wise sensei continues to stress simple lessons:

"Better learn balance. Balance is key. Balance good, karate good. Everything good. Balance bad, better pack up, go home. Understand?"

"We make sacred pact. I promise teach karate to you, you promise learn. I say, you do, no questions."

Daniel discovers that the explicit know-how for properly waxing a car and painting a fence – like John Wooden's insistence on properly tying shoes – leads to a markedly higher level of tacit insight for achieving one's objectives.

The UCLA Bruins team wins its NCAA championships. "The Karate Kid" Daniel wins his karate tournament.

Learning to ride a bike, sink a 3-pointer, deliver a karate chop, and balance one's life and money begins with learning basic explicit knowledge.

Then — **explicit knowledge must be carefully honed, shaped, forged and hammered into valuable tacit knowledge that delivers far greater worth to oneself and society.**

Anyone may come to know. But in today's evermore complex world, the point **is to fully understand.**

One should never underestimate the complexity required to create simplicity. The tacit knowledge needed for simple, optimal solutions comes from practical experience and seasoned wisdom.

An Old Dutch proverb: "Too soon old too late smart."

Not because of their weekly card-playing, but because of years of professional experience, master plumbers know that a royal flush always beats a full house.



Gary Klaben

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