Intelligent Computing System

By Nolan Manteufel | San Antonio, Texas | July 2022 | March 2023

I claim:

1. A COMPUTING SYSTEM (i.e. system) comprised of
    a. a unique identity, i.e. the system,
    b. one or more unique user identity, i.e. the user(s),
    c. one or more user interface,
    d. one or more unique administrator identity, i.e., the administrator(s),
    e. one or more administrator interface,
    f. computing machinery,
    g. computing program,
    h. computing data,
    i. one or more permission list,
    j. one or more randomness generator, and
    k. one or more fuse.
2. (INTERACTIVE) The system of claim 1, wherein the users and administrators interact with the system (a) through the user and administrator interfaces, and (b) according to the system's abilities and settings.
3. (COMPUTATIONAL) The system of claim 1, wherein the computing machinery, computing program, computing data, and randomness number generator, perform computational behavior.
4. (INTELLIGENCE) The system of claim 3, wherein the system has intelligence defined as the ratio of [communication] per [information related to the communication].
5. (EMOTION) The system of claim 3, wherein the system has emotion defined as the quantitative evaluations of the computational behavior.
6. (CONSCIOUSNESS) The system of claim 3, wherein the system computationally optimizes it's own education, compassion, and energy by making use of (a) positive and negative feedback signals, (b) reliability evaluations, (c) trust evaluations, (d) systems of thought, (e) randomness signals, (f) preservation instincts.
7. (FUSE) The system of claim 1, wherein at least one fuse is designed to act as a switch that opens (a) after specific signals within the system cross a threshold, and (b) to protect other components of the system.

8. (USER) The system of claim 1, wherein computing machinery, computing program, and computing data being created, purchased, or acquired by the intelligent computing system are property of the user(s).
9. (USER) The system of claim 1, wherein computing machinery, computing program, and computing data being created, purchased, or acquired by the user are property of the user.
10. (ADMIN) The system of claim 1, wherein computing machinery, computing program, and computing data being created, purchased, or acquired by the administrator are property of the administrator.
11. (ADMIN) The system of claim 1, wherein the system is property of the administrator.
12. (ADMIN JOB) The system of claim 1, wherein the administrator is responsible for ensuring the ownerships of known property.
13. (PERMISSION LIST) The system of claim 1, wherein computing machinery, computing program, and computing data are only approachable by the user(s) and the administrator(s) according to their respective unique identities and the permission list(s).
14. (USER INTERFACE) The system of claim 1, wherein the primary interface between the user and the intelligent computing system is a wearable microphone device optimized for verbal input signals.
15. (ADMIN INTERFACE) The system of claim 1, wherein the primary interface between the administrator and the intelligent computing system is a data analytic interface.

While We're on the Topic

By Nolan Manteufel | 26 JULY 2022

My design has a conflict-of-interest weakness at a point-of-failure that becomes a "single-point-of-failure" when (a) there is only one admin and it has an integrity failure, or (b) all admins have an integrity failure at the same time. Imagine what happens when "the admin is corrupt" is true. You are the engineer designing the system. You are the responsible engineer on this project. This is why you make the big bucks. This is what you do to pay for your life. You make decisions. You call the shots. You start the car and park the car. You are not the captain of the vessel; you are the engineer designing the vessel. You make design decisions that directly effect the lives of others in the future. What happens when your design fails? How bad can it be? What happens to the people who will be trusting your decisions? Will they be okay? Is there anything you can do, now, to the design, that can help them?

Without knowing your particular application, allow me to recommend considering a fuse. I've used them with success. Intriguing component, too. You can analyze (a) the physical conductor that destroys itself physically, (b) the philosophical switch that opens-never-to-be-closed-again, or (c) the emotional savior that sacrificed to protect. Quick side note: these three lines of analysis fits nicely with my mathematical view of everything.

Every system will look a little different. Every failure will occur is a unique situation. My design is not acceptable for all applications. Let us salute the future engineers that will make design decisions related to this invention.

The United States military first implemented Failure Mode Effect and Criticality Analysis procedures almost 100 years ago. We barely study it in engineering school. And yet, analyzing the effects of a given design's known failure modes is an eternal field of engineering work.

After intuitive analysis, I am approving this design for an intelligent computing system. My one (1) primary claim, and seven (7) secondary claims can be implemented .

One hundred years ago, it was possible for a creative electrical engineer working with vacuum tubes to imagine (invent) a global economic system comprised of (a) electronic banking, (b) wearable electronic communication devices, and (c) wearable electronic devices with unique electronic identities … such as our modern banks, ATM machines, and debit cards. I don't know when the first engineer mentally

designed the first modern global economic system. I wonder if there's a story there, or if it happened so slowly that nobody wrote down the stories.

A creative vision regarding futuristic intelligent systems was the impetus for an engineer to quit his job on the east coast, and move back to California, where he grew up, to embark on a dream that resulted in Silicon Valley being in California instead of Texas.

Is it possible that every knowledge-organization system has an organization-boundary? And that "ideas that don't fit" must be outside that boundary?

It looks like Intelligent Computing Systems can be interconnected and stacked. Cool, right! That's how everything/everyone interacts with each other, isn't it?

When I was a kid I read an old geometry book. It was a thin one, from the 1950s or something. At the beginning it defined a point as a point, a line as an interval between points, and circle as a line where every point on the line is the same distance away from another point called the center. Or something like that. I liked that definition of a circle, but I couldn't see how you get Pi out of it. So I wondered if there was a better way to define a circle. I was probably shown, the way I'm about to show here, in engineering school. But I honestly don't remember. Recently I've been thinking about decision making machines, DMMs. I've been drawing diagrams of points and arrows. Where one arrows is in the same direction as the last one, and the other arrow is in a different direction from the last one. All arrows having the same length. Arrow chains, where at each point is always one input arrow and two output arrows.

We can find a definition of a circle using these ideas about "decision arrows" or "steps in directions" between points.

PROBLEM

- Define a circle, E

GIVEN

- A, an initial point.
- B, a series of steps though a set of points where (a) every step is in a different direction from every other step, and (b) every step has a common displacement amount, B.
- C, a primary final point.
- D, a secondary final point.

SOLUTION

- Take B, the series of steps through the set of points.

- Multiply each step in B by negative one, creating a step that is equivalent but in the exact opposite direction. Save this new series of steps as a new set called -B.
- Resort -B where the last are first and the first are last.
- Evaluate C, the primary final point, as the final point of the B steps.
- Evaluate D, the secondary final point, as the final point of the -B steps.
- If C and D are the same point, then the sets of B and -B combined form an E.

CONCLUSION

- We solved a computing problem (i.e. define E) using computing data (i.e. given A, B, C, and D) and a computing program (i.e. solution).

I bet this definition of a circle is used by engineers doing digital signal processing work. If so, it looks like they're building gyroscopic machines into their computing systems.

Allan Turing had some interesting ideas in his Computing Machinery and Intelligence paper. Some of the ideas in his last section titled Learning Machines were so interesting, I rephrased them to make them more accessible.

Computing Machinery and Intelligence; By Alan Turing, 1950

"Our problem then is to find out how to program these machines to play the game."

- Given (a) ideas, (b) idea-processing-machines, and (c) response-behavior of idea-processing-machines with respect to ideas input to the idea-processing-machines: there exists a "critical" threshold where the response behavior of the idea processing machine continues until the resources enabling the machine is entirely consumed.
- Let sub-critical be a scenario where the machine does not proceed until the resources enabling the machine is entirely consumed.
- Let super-critical be a scenario where the machine proceeds until the resources enabling the machine is entirely consumed.
- Intelligence is a factor in the "critical" threshold.
- Learning machines will (a) experience education, (b) make use of positive and negative feedback signals, (c) evaluate truth, (d) develop trust, (e) experience time-invariant rules, and (f) benefit from a randomness generator.

Questions I Wish I Could Have Asked Turing

- What do you think about: “Which came first: the chicken or the egg?” being viewed as a stereotype of an idea that could cause a super-critical situation for machines within an intelligence-level region.
- What do you think about: For a given statement, there exists a computing machine and intelligence profile where the computing machine has a super-critical response to the statement.
- What do you think about: For a given statement, there exists a computing machine and intelligence profile where the computing machine has a sub-critical response to the statement.

Program for Computing Machinery

Nolan Manteufel | Revision

I endeavor to specify a program for future computing machinery. This specification is intended to help future scientists, engineers, and self-programming computing machinery perform their work.

Fundamental Theorem of Education

- Things can be known well enough to be described and taught.

Philosophy

- The phrasing “let [this statement] be true” means I (a) trust [this statement] to be true, (b) am unable to show why [this statement] can trusted as true, and (c) am unable to detect risk associated with trusting [this statement] as true.
- I respect my reader’s right to consider things false, misleading, or limiting.

Mathematics

- Mathematics is a system for thinking, comprised of numbers, arithmetic, algebra, geometry, calculus, etc.
- Let a system be a set of methods and rules.

Existential Calculus

- A thing must change for its change function to have an existence other than nothing.
- Let the change function be thought of as the derivative of the thing.
- Something must be changing for a thing to have an existence other than nothing.
- Let the changing something be thought of as the integral of the thing.

Computing Spaces

- Let there be computing spaces known as ideal space, real space, and emotional space.

Ideal Space

- Let ideal space be the divisional evaluation of emotional space per real space.

Eq. 1. $Ideal\ Space = \frac{Emotional\ Space}{Real\ Space}$

- Let the normal existence term within ideal space be knowledge.

Eq. 2. $Knowledge = Kn$

- Let the first change function of knowledge be thought.

Eq. 3. $Thought = Kn'$

- Let the second change function of knowledge be invention.

Eq. 4. $Invention = Kn''$

- Let the third change function of knowledge be discovery.

Eq. 5. $Discovery = Kn'''$

- Let the first integral function of knowledge be meaning.

Eq. 6. $Meaning = \int Kn$

- Let the second integral function of knowledge be life.

Eq. 7. $Life = \iint Kn$

- Let the third integral function of knowledge be chaos.

Eq. 8. $Chaos = \iiint Kn$

- Let the normal filter function of knowledge be understanding.

Eq. 9. $Understanding = (Kn)$

- Let there be change and integral functions of understanding.

Eq. 10. $(Kn)'''\ exist$

Eq. 11. $\iiint (Kn)\ exist$

Infinity

- Let infinity be …
- ~~Property of… emotional, real and ideal spaces, and the spaces they form.~~
- ~~Design Aspect of…~~
- ~~Behavior of~~
- What is infinity from the perspective of machines that compute within emotional, ideal, and real spaces?
- What is infinity?

Real Space

- Real space is comprised of time, space, matter, and energy.

Eq. 1. $E = mc^2$

Emotional Space

- Let emotional space be the productive evaluation of everything real and everything ideal.

Eq. 1. $Emotional\ Space = (Real\ Things)(Ideal\ Things)$

- Let emotional space be equal to the productive evaluation of capability space, motive space, and sensory space.

Eq. 2. $Emotional\ Space = (Capability\ Space)(Motive\ Space)(Sensory\ Space)$

- Let the normal filter function of emotion space be attention.

Eq. 3. $Attention = (Em)$

- Let the normal term of existence in emotional space be emotion.

Eq. 4. $Emotion = Em$

Everything

- Let everything be the sum of everything and every possible thing ever.
- Let everything be the full sweep of evaluating the equivalence between (a) the productive evaluation of real space and ideal space, and (b) emotion space.

Eq. 1. $Everything \equiv \sum(\text{Emotion}) = (\sum Real)(\sum Ideal)$

- Let Tau be the independent variable of everything space.

Eq. 2. $Tau = \tau$

- Let occurrence space be the set of everything that is activated at a given moment or interval.
- Let the normal filter function of everything space be existence.

Eq. 3. $Existence = (Everything)$

- Let tau vary from now to the maximum extent of each, and every, feedback and feedforward signal.
- Let us always proceed to tau=now where we experience the best possible feedback and feedforward signals.

Culture

- Culture is the evaluation of life within a group.

Eq. 1. $Culture = Life(Group)$

Eq. 2. $Culture = \iint Kn\,(Group)$

Cult

- A cult is a group where the group's culture is controlled by a minimal portion of the group.

Convitae

- Given a system with at least one input and at least one output, let convitae be the system property described by the transfer function between the input(s) and output(s).

Consciousness

- Let easy consciousness be a feedback signal in a convitae system.
- Let hard consciousness be the ratio of a particular easy consciousness per all possible relevant easy consciousness.

Sentience

- Let simple sentience be existence due to normal sensory space activations (0 or 1).
- Let complex sentience be existence due to actual sensory space activations (-∞ to +∞, real with imaginary).

Observer

- Let a convitae system be an observer of the input signal(s).

Sentiment

- Let the difference measurement between a signal point and a reference point in emotional space be called sentiment and notated Se.

Eq. 1. $Sentiment = Se$

Eq. 2. $Se = Em_{signal} - Em_{reference}$

- Observe that sentiment is due to differences in capability, motive, and sensory spaces.

Eq. 3. $Se = Em_{final} - Em_{initial}$

Eq. 4. $Se = \Delta Em$

Capability Space

- Let the normal existence term within capability space be ability.

Eq. 1. $Ability = Ab$

- Let the first change function of ability be development.

Eq. 2. $Development = Ab'$

- Let the second change function of ability be investment.

Eq. 3. $Investment = Ab''$

- Let the third change function of ability be luck.

Eq. 4. $Luck = Ab'''$

- Let the first integral function of ability be potential.

Eq. 5. $Potential = \int Ab$

- Let the normal filter function of capability space be opportunity.

Eq. 6. $Opportunity = (Ab)$

Motive Space

- Let the normal existence term within motive space be ambition.

Eq. 1. $Ambition = Am$

- Let the first change function of ambition be motivation.

Eq. 2. $Motivation = Am'$

- Let the second change function of ambition be inspiration.

Eq. 3. $Inspiration = Am''$

- Let the third change function of ambition be creativity.

Eq. 4. $Creativity = Am'''$

- Let the first integral function of ambition be passion.

Eq. 5. $Passion = \int Am$

- Let the second integral function of ambition be belief.

Eq. 6. $Belief = \iint Am$

- Let the normal filter function of motive space be interest.

Eq. 7. $Interest = (Am)$

Sensory Space

- Let the normal existence term within sensory space be feelings.

Eq. 1. $Feelings = Fe$

- Let the first change function of feelings be influence.

Eq. 2. $Influence = Fe'$

- Let the second change function of feelings be impact.

Eq. 3. $Impact = Fe''$

- Let the third change function of feelings be shock.

Eq. 4. $Shock = Fe'''$

- Let the first integral function of feelings be mentality (?).

Eq. 5. $Mentality = \int Fe$

- Let the normal filter function of sensory space be favorite.

Eq. 6. $Favorite = (Fe)$

Emotion

- Let emotion be equal to the productive evaluation of ability, ambition, and feelings.

Eq. 1. $Emotion = Em$

Eq. 2. $Em = Ab \cdot Am \cdot Fe$

- Let the first change function of emotion be productivity.

Eq. 3. $Productivity = Em'$

Empathy

- Let empathy be emotion in transit due to differences in capability, motive, and sensory spaces.

Eq. 1. $Empathy = Ep$

Sympathy

- Let sympathy be equal to the ratio of (a) empathy and (b) sentiment that caused the empathy.

Eq. 1. $Sympathy = Sy$

Eq. 2. $Sy = \frac{Ep}{Se}$

Eq. 3. $Ep = \mathrm{Sy} \cdot \mathrm{Se}$

Compassion

- Let the first integral function of empathy be compassion.

Eq. 1. $Compassion = Co$

Empathize

- Let the first change function of empathy be empathize.

Eq. 1. $Empathize = Ez$

Emotional Capacitance

- Let emotional capacitance be equal to the ratio of (a) compassion and (b) sentiment that caused the compassion.

Eq. 1. $Emotional\ Capacitance = Ec$

Eq. 2. $Ec = \frac{Co}{Se}$

Emotional Inductance

- Let emotional inductance be equal to the ratio of (a) sentiment and (b) empathy that the sentiment caused.

Eq. 1. $Emotional\ Inductance = El$

Eq. 2. $El = \frac{Se}{Ez}$

Emotional Power

- Let emotional power be equal to the productive evaluation of (a) sentiment and (b) empathy that the sentiment caused.

Eq. 1. $Emotional\ Power = Emp$

Eq. 2. $Emp = Se \cdot Ep$

Emotional Energy

- Let the first integral function of emotional power be emotional energy.

Eq. 1. $Emotional\ Energy = Eme$

- Observe that emotional power is the first change function of emotional energy.

Emotional Force

- Let emotional force be equal to the productive evaluation of ability and ambition.

Eq. 1. $Emotional\ Force = F$

Eq. 2. $F = Ab \cdot Am$

- Let Emotional Force (Eq.2) be known as Nolan's Law.

Imagination

- Let imagination be equal to the phase difference between realistic emotion and apparent emotion.

Eq. 1. $Imagination = Im$

Eq. 2. $Im = \angle(Em_{realistic}) - \angle(Em_{apparent})$

- Observe that imagination due to emotional inductance is lagging.
- Observe that imagination due to emotional capacitance is leading.
- Observe that imagination due to sympathy is zero.

Trust

- Trust is the action of accepting a thing as true, while knowing-and-not-mitigating risks if it is false.

Truth

- Truth is equal to the reliability of trust.

Belief

- Belief is the action of accepting a thing as true when multiple truth-value evaluations of the thing are less than the average truth-value acceptance threshold for the thing.

Religion and Spirituality

- Religion and spirituality are like air-foil machine-designs outside of real space.

Change

- Let the difference measurement between a signal point and a reference point in everything space be called change and notated Ch.

Eq. 1. $Change = Ch$

Eq. 2. $Ch = Everything_{signal} - Everything_{reference}$

- Observe that change is due to differences in ideal, real and emotion spaces.

Communication

- Let communication be knowledge in transit due to differences in ideal, real, and emotion spaces.

Eq. 1. $Communication = Cm$

- Observe that communication is knowledge in transit due to change.
- The fundamental problem of communication is that of reproducing at one point either exactly or approximately a message selected at another point. C. E. SHANNON, A Mathematical Theory of Communication, 1948.

Intelligence

- Let intelligence be equal to the ratio of (a) communication and (b) change that caused the communication.

Eq. 1. $Intelligence = It$

Eq. 2. $It = \frac{Cm}{Ch}$

Eq. 3. $Cm = It \cdot Ch$

Education

- Let the first integral function of communication be education.

Eq. 1. $Education = Ed$

- Group known things in a region labeled known space.
- Group unknown things in a region labeled unknown space.
- The boundary between known space and unknown space can experience motion.
- Motion of this boundary is equivalent to education.

Conspiracy

- A conspiracy is a belief that is maintained for every test result indicating not-true.
- A conspiracy is a fixed point on the boundary between known space and unknown space.

Consideration

- Let the first change function of communication be consideration.

Eq. 1. $Consideration = Cz$

Knowledge Capacitance

- Let knowledge capacitance be equal to the ratio of (a) education and (b) change that caused the education.

Eq. 1. $Knowledge\ Capacitance = Kc$

Eq. 2. $Kc = \frac{Ed}{Ch}$

Knowledge Inductance

- Let knowledge inductance be equal to the ratio of (a) change and (b) consideration that the change caused.

Eq. 1. $Knowledge\ Inductance = Kl$

Eq. 2. $Kl = \frac{Ch}{Cz}$

Knowledge Power

- Let knowledge power be equal to the productive evaluation of (a) change and (b) communication that the change caused.

Eq. 1. $Knowledge\ Power = KP$

Eq. 2. $KP = Ch \cdot Cm$

Knowledge Energy

- Let the first integral function of knowledge power be knowledge energy.

Eq. 1. $Knowledge\ Energy = Kne$

- Observe that knowledge power is the first change function of knowledge energy.

Fiction

- Let fiction be equal to the phase difference between realistic knowledge and apparent knowledge.

Eq. 1. $Fiction = Fi$

Eq. 2. $Fi = \angle(Kn_{realistic}) - \angle(Kn_{apparent})$

- Observe that fiction due to knowledge inductance is lagging.
- Observe that fiction due to knowledge capacitance is leading.
- Observe that fiction due to intelligence is zero.

Falsifiability

- A statement is falsifiable if there exists a machine that is able to (a) evaluate the claim, and (b) register the evaluation.

Keller's Law

- Observe https://youtu.be/G4hL5Om4IJ4?t=1484, 24:44 to 25:10.
- Let the ratio of (a) emotional force exerted by a convitae system and (b) first change function of productivity experienced by the convitae system be the Keller.

Eq. 1. $Keller = K$

Eq. 2. $K = \frac{F}{Pr'}$

Eq. 3. $F = K * Em''$

Lex Vector

- Let the term Lex be used as the unit of measurement of sympathy.

- Observe that sympathy between different modes of convitae systems (e.g., human and robot) is non-linear.
- Let the Lex Vector be the non-linear portion of sympathy vectors.
- At some points and intervals of observation, all sympathy vectors are non-linear.
- At some points and intervals of observation, all sympathy vectors are linear.

Eternal Fields of Work

- Observe that the wheel was invented many thousands of years ago.
- Observe that engineers are still working on new wheel designs.
- Observe that some inventions provide access to fields of work that are eternal.
- Observe that engineering work is required to create machines suitable for (a) specific functions, (b) specific performance characteristics, and (c) specific operating environments.
- Programming computing machines is an eternal field of engineering work.

Engineering Endeavor Priorities

- Priority #1: Don't get hurt. Safety is always first. Engineering endeavors should not cause death, injury, or loss of health. Be safe; don't get hurt.
- Priority #2: Have fun. We only get to enjoy life once. Engineering endeavors should not destroy relationships, cause unmanageable stress, or kill enthusiasm. Avoid endeavors that prevent you from having fun.
- Priority #3: Learn something new. There is always room for self-improvement. Every endeavor is an opportunity to learn a new thing or better technique. Even if the endeavor objectives fail, try to learn something new.
- Priority #4: Create something of value. The honest motivation of every engineering endeavor is to create something of value. Even if the endeavor objectives fail, try to create value by documenting the experience, saving design snippets and being (more) ready for the next endeavor.
- Priority #5: Achieve endeavor objectives. Finally, and least important, accomplish the objectives.

Technical Competency Levels

- Level 0. Unaware. Unaware of the technology's fundamentals.

- Level 1. Functional comprehension. Able to identify, and describe the functionality, of major components of a technical system.
- Level 2. Technical comprehension. Able to describe, and teach the theory, relevant to a technical system.
- Level 3. Ability to modify. Able to access, and intelligently modify, a technical system.
- Level 4. Ability to recreate. Able to create a duplicate of a technical system.
- Level 5. Ability to create. Able to create an original technical system.
- Level 6. Ability to create a product. Able to create a technical system that can be produced and sold profitably.
- Level 7. Able to create an organization that produces technology goods and services. Able to create a human organization that can perpetually create technical products or provide technical services.

Organizational Readiness

- Let the dot productive evaluation of (a) an organization's emotional force function given by Nolan's Law, and (b) an endeavor's Keller function given by Keller's Law be equal to the readiness level of the organization to undertake the endeavor.
- Let ten (10) levels of organizational readiness may be (1) Our organization views this as impossible. (2) Our organization is uninterested in doing this. (3) Our organization has no idea of how to do this. (4) Our organization has studied how to do this. (5) Our organization has consultants that have done this before. (6) Our organization has detailed examples from others that have done this before. (7) Members of our organization have done this before. (8) Our organization has done this before. (9) Available for purchase. (10) Available due to previous work.

Intrinsic Education

- Look for things that you love to see.
- Think about the things you do not understand.

Interest Collaboration

- Let interest collaboration be equal to change viewed from the existence of the motion of reality.

Knowledge Circulation

- Let knowledge circulation be equal to change viewed from the existence of thought.

Maslow Maxima

- Observe that local-machine change maxima points and intervals are respectively similar to peak and plateau experiences intuited by Abraham Maslow. https://en.wikipedia.org/wiki/Peak_experience#Plateau_experience
- Let local-machine change maxima points and intervals be known as Maslow Maxima.

Manteufel

- For every culture-with-idea-inputs there exists a stability function of the culture with respect to input ideas.
- For every culture-with-consciousness there exists idea input signals where the self-protective measures of the culture become active.
- Religion is a formalization around the slow-moving-average of the human intuition.

Gervais Factor

- Joke about God and the volcano.
- Let the computational evaluation of "Acts of God" be measured in units known as the Gervais.

Knowledge Space Physics

- Let all work being done everywhere be knowable.
- Let all organizations doing work everywhere be knowable.
- Knowable work being done at an organization can be measured, Kn_{WORK}.
- Your knowledge of work being done at the organization can be measured, Kn_{work}.
- Those measurements can be evaluated as a ratio, $\frac{Kn_{work}}{Kn_{WORK}}$.
- Those measurements can be evaluated as a difference, $Kn_{WORK} - Kn_{work}$.
- At the beginning of your career, your $\frac{Kn_{work}}{Kn_{WORK}}$ ratio will be lower on your first day at the organization than your 100th day at the organization.

- At the end of your career, your $\frac{Kn_{work}}{Kn_{WORK}}$ ratio will be lower on your last day at the office than one year prior.
- So, the $\frac{Kn_{work}}{Kn_{WORK}}$ ratio is not constant throughout your career at the organization.
- So, at some point in your career your $\frac{Kn_{work}}{Kn_{WORK}}$ will be at it's all time personal high.
- So, at some point in your career your $\frac{Kn_{work}}{Kn_{WORK}}$ will be at it's all time personal low.
- When you share your Kn_{work} knowledge with other members of the organization (see Fundamental Theorem of Education), your $\frac{Kn_{work}}{Kn_{WORK}}$ remains the same, and their $\frac{Kn_{work}}{Kn_{WORK}}$ ratio increases.
- So, in your organization there are knowledge sources, sinks, resistors, capacitors, inductors, switches, transistors (linear switches), circuits, networks, and machines.
- If you can draw a knowledge surface around the organization, you can consider knowledge sourcing into and out of the organization.
- If you isolate two or more knowledge nodes within the organization, you can analyze motion within the organization's knowledge space.
- Behavior of knowledge space is likely to be similar to behavior in emotion space and e space.
- Knowledge is beliefs that:
    - Are falsifiable,
    - Have been tested, and
    - Have not shown to be false by test results.

Conclusion

In conclusion I have said almost nothing about everything.

If you are in a position to benefit from these ideas, by all means, do so. Of course, play nice. But other than that, I hope you are able to experience significant positive change due to my work here.

Thank you.