

The Data Chain

Coburn Ventures

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The Data Chain

In 2006, I was flying eastbound from San Diego after giving a presentation to a group at a data conference that my friend, Tony Shaw, had put together.

I was still contemplating data sitting in what may have been seat 24D, – left-hand aisle seat if you were facing the rear of the plane – and I thought about the tendency of Wall Street (including me!) to associate “data” merely with “storage.” I thought that perhaps such narrowness must be missing something significant.

This was 2006.

We were all reeeeeaaaally impressed by how many songs and pictures could fit in an iPod... How much data could fit in such a small device!

I am pretty certain that the thumbnail iPod hadn't even been released to the market yet. It was as if THE be-all and end-all of “data” were how much of it could be managed and how much could fit into a small space.

In retrospect, more than ten years later, society now thinks much more widely about “data” in all sorts of ways.

So...

In a few hours on that flight, my thinking went from fairly darn narrow (e.g. data = storage) to coming to believe that 26 of our 36 long positions were largely “data” investments and that only two of them competed against each other (Apple and RIM). And what that meant was that in the span of maybe a five-hour flight, my thinking on data expanded so significantly that I had found 25 distinct opportunities for DATA investments and NONE of them had to do with storage!

A monumental mindset shift.

What made the difference was that I first doodled out a visual I called the “DATA CHAIN” and from there my mind quickly exploded with fresh thinking.

That was 2006.

In the past ten years, the DATA CHAIN has been perhaps our fourth or fifth most valuable framework for thinking about society, business, and stocks.

I have used the DATA CHAIN to explain the way we use frameworks to help folks consider their own processes for developing insight.

Today, I will re-explain the core of the DATA CHAIN and include some of the insights I think I have realized more recently, although this will not be the most expansive explanation of the model. Across ten years, we have uncovered tremendous nuances that would be far too voluminous for today's purpose. We also have two DATA trilogies we are happy to share to spur thinking about different types of effects on businesses and people.

Yesterday, a friend described that Coburn Ventures did four things: (1) we work on companies/stocks; (2) we work on the underpinnings of specific markets; (3) we develop frameworks/mental models for thinking; (4) we work on process.

Well if that is true, today I will speak to the DATA CHAIN as a mental model and as a meta-mental model.

The visual is below and it's pretty vital to following along.

The model moves from left to right in seven stages. We think it represents a MODEL of decision making on planet Earth. If it seems too clean, that is because it is a MODEL of reality to help us understand reality: BUT it is NOT reality. It is a model. We will see in what ways it might help us, and when it doesn't, I remember that it is a MODEL and reality is trickier!

Here we go, from top to bottom, on the right-hand side model:

STEP #1: PROBLEM/QUESTION

STEP #2: DATA

STEP #3: INFORMATION/KNOWLEDGE

STEP #4: INSIGHT/WISDOM

STEP #5: DECISION

STEP #6: ACTION/EXECUTION

STEP #7: RESULT/MEASUREMENT

That's it.

In a moment, I will provide an example. Just before that... society often says, "we want to make informed decisions." I don't think this is actually true. I think people want to make "insightful" or "wise" decisions. If you think of some old sage that you thought very, very highly of, you wouldn't likely speak in reverential tones that she is so deeply "informed." You might, however, say that she is so wise.

I think we truly aspire to insightful or wise decision-making.

DATA CHAIN MODEL



There is a big difference between informed/knowledgeable as opposed to insightful/wise. I will get at it. For now, thinking that we want to make “informed decisions” would lead one to amass more and more and more knowledge, BUT that immense knowledge would not in ANY way ensure that wise decisions would be made.

So, we shoot for insightful/wise. OK...

A simple example of the DATA CHAIN in action.

STEP #1: PROBLEM/QUESTION

You identify a problem or a question. For example, you might have a stomach problem.

STEP #2: DATA

You go to a doctor and the doctor gets data.

STEP #3: KNOWLEDGE/INFORMATION

The doctor CONVERTS the data into knowledge/information because she is a doctor! That is why you went to a doctor as opposed to an auto mechanic.

MISSING INGREDIENT: ...but HOW does the doctor convert DATA into INFORMATION / KNOWLEDGE?

What is the missing special and converting ingredient?

CONTEXT.

The doctor is capable of bringing context to the data while many people cannot. This happens in many situations! For instance, the data in the spreadsheets that I use are pieces that I am able to convert into knowledge/information because I have context for the data. On the other hand, my wife does not. She couldn't turn that data into knowledge/information. SO amassing DATA itself is pretty useless if you are unable to convert it.

STEP #4: INSIGHT/WISDOM

The doctor converts the knowledge/information into insight/wisdom in order to make an informed decision about what actions to take next.

MISSING INGREDIENT: ...but HOW does the doctor convert INFORMATION/KNOWLEDGE into INSIGHT/WISDOM?

What is the missing special and converting ingredient?

MENTAL MODELS/WORLD VIEWS.

Because the doctor went to medical school and goes to conferences to learn about the latest research, she has a mental model for certain biological concepts, like how the stomach functions. She is therefore capable of converting the knowledge/information into insight/wisdom.

This is THE really important point regarding the conversion of information/knowledge into wisdom/insight: there is some way that a conversion takes place. It isn't “magic.” There is some sort of conversion mechanism required between these two steps and we observe that internalizing the methods at our disposal (e.g. mental models) has us more capable of routinely generating wiser decisions.

STEP #5: DECISION

The doctor makes a decision about what to do regarding your stomach problem.

STEP #6: ACTION/EXECUTION

You take pills that the doctor selects.

STEP #7: RESULT/ MEASUREMENT

Your stomach feels better. Easy peasy!

And that is the DATA CHAIN.

20 OBSERVATIONS OF THE DATA CHAIN MODEL

#1. THEORY VERSUS PRACTICE

Usually life doesn't work nearly as cleanly as the example I provided. Yogi Berra once said, "In theory, there is no difference between practice and theory: but in practice, there is."

#2. IDENTIFYING THE PROBLEM

Usually, people (and especially companies) have a tremendous challenge identifying the problem/question accurately. And even if that happens, often the question is forgotten in the course of busy days and lives.

#3. ITERATION

Life often looks more like an iterative pattern using the parts of the model as opposed to a straight left-to-right sequencing.

#4. BUSINESS OPPORTUNITY #1

This model suggests at least seven specific steps that businesses could choose to compete in from problem identification (e.g. McKinsey) to measurement (e.g. Nielsen). Businesses might choose to compete in multiple parts of the DATA CHAIN as well.

#5. BUSINESS OPPORTUNITY #2

This model suggests you could compete by industry vertical.

#6. BUSINESS OPPORTUNITY #3

This model suggests different attributes one can compete in such as the presentation of data (e.g. Adobe) or quality or relevance even without quality (e.g. Zillow's Z-scores)... this model does not assume "quality."

#7. NO GUARANTEE OF SUCCESS

The model, at times, does not lead to excellent results. This is just a model of the world: if you don't think the world works well often, don't BLAME the model!

#8. FAUX-INSIGHT

Many companies skip "insight" and still make decisions – or sometimes (in very effective ways) use strong correlation as faux-insight.

#9. DATA IS LOSING VALUE IN ITS ABUNDANCE

Data is EASY TO ACQUIRE and HIGHLY ABUNDANT. Therefore, the specific value of "data" is dropping.

#10. INGRAINED MENTAL MODELS

Humans typically develop worldviews and related mental models without realizing it. The efficacy of these worldviews and mental models can be limited according to the situation, circumstance, and context.

#11. POOR APPLICATION

Humans often apply these subconscious worldviews and mental models inappropriately. With only a few mental models to draw from and a lack of overall awareness, humans inadvertently use their limited tools in a blunt, club-like fashion as they often haven't built enough tools or awareness to be surgical.

#12. THREATS TO WORLD VIEWS: Humans grow to dislike having their worldviews and ingrained mental models challenged. This mental stubbornness often prevents us from taking full advantage of the benefits of "diverse teams" (which we see as very real).

#13. INTENTIONAL DEVELOPMENT

Insight/Wisdom requires the development/study/internalization of mental models, which is very, very rare and hardly a mainstream topic of the educational process, let alone a model for life long living.

#14. INTERNALIZATION

Internalized mental models are FAR more valuable than ones that require being pulled off the shelf at just the right moment.

#15. SITUATIONAL APPLICATION

Knowing WHICH mental model will work best in a given circumstance comes from deep internalization of the model. For instance, when is “look before you leap” an appropriate mental model and when is “he who hesitates is lost” far more appropriate?

#16. INSIGHT/WISDOM IS VERY VALUABLE

Insight/wisdom is far, far rarer than data or knowledge/insight and therefore is FAR more valuable.

#17. MAXIMIZATION OF INSIGHT/WISE DECISIONS

People and businesses wish to maximize wise/insightful decision-making and believe if they make enough wise/insightful decisions that they are apt to find great success even in the face of many challenges.

#18. STUDENT-MINDEDNESS

A student-mindedness will naturally lead to a pursuit of additional mental models and an internalization of those models, from which more and more wise/insightful decisions might be made routinely, given the abundance of mental models that one has command of.

#19. “EMOTIONS GETTING THE BEST OF US”

Many key decisions in life and business are loaded with emotion that swamps the possibility for insight/wisdom. In many cases, emotions are appropriate decision-making ingredients because we are... humans... not machines. In other instances, if “emotions get the best of us,” there can be significant negative consequences.

#20. META-MENTAL MODEL

This is a mental model and a meta-mental model as it identifies THE moment where the missing special-converting ingredient of mental models can make all the difference in the world.

...AND THE ULTIMATE QUESTION IN INVESTMENT PROCESS....

When it comes to the investment process, we might consider the fact that THE ENTIRE point of the process is to position ourselves so we are better able to routinely make insightful/wise decisions.

It would be natural to consider that the way investment teams get to that point of insightful/wise decision making—which includes efficacy, the role of sharing, collaborating, communicating, meeting, and the ways in which an organization with thousands of potential companies to invest in uses its “diverse team” successfully—is critical.

Our working definition of “TEAM” is: *A group of individuals that richly comprehend their interdependence and WHERE each individual ACTIVELY CHOOSES that interdependence.*

Can a “team” develop a sense of interdependence? Can a “team” find it exciting and desirable to live in the context of wanting and enjoying what is possible with that interdependence? And then can it use that experience and this simple meta-mental model to get in better positions to make decisions?

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