

What is information?

What is information?

The results of contemplation 2011 / 12 / 27 – 2012 / 11 / 04

2012 / 01 / 04

It seems the main issue at any time is that I want to be somewhere I am not. More precisely, I want it to be the case that in the future I am at a certain place that I am not currently at. The question becomes “how do I get there from here.” This question is often best answered in chunks. For example, if I want to be at the doctor’s office in an hour, then I have to decide how to get there.

Walk or bike? ..Walk.

Best route? ..Fastest route.

Fastest route? ..Need to know Doctor’s precise location.

Precise location? Central square.

Fastest route? Anything toward central square.

Time to leave? .. Arrive at 8:55.

Time it takes? .. About 30 minutes.

Time to leave? .. 8:25.

In fact, the initial question may have seemed more like “what time do I need to leave?” than “walk or bike?”

So what is all this? How can we describe what it is that dictates which questions we ask in order to fulfill our mission of getting where we want to go?

2012 / 01 / 26

Information is a report of consistency in experience.

2012 / 01 / 30

Information is what we use to translate a problem into available actions.

At any given time I have a vocabulary of available actions, e.g. moving my arm or leg, speaking, listening, etc. And at any given time I want something to be different than it is now -- i.e. I have a task to do. The goal is to accomplish the task, and this can only be achieved by performing a sequence of available actions. The role of information is to (hierarchically) translate tasks into a sequence of more-easily available sub-tasks, a process that culminates in a sequence of available actions.

For example, in order to get from here to there, I use my legs, ears, and eyes (which are available to me) in conjunction with a set of street signs, traffic signals, maps, etc., which serve to translate higher-level needs into lower-level needs, a process which terminates when I arrive at a low-level need that can be accomplished by an available action. Explicitly, a need to get to building X is translated into a need to find intersection Y by the information that X is near Y.

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Note that the information I have now may not be sufficient to get me to X. I may begin the journey without knowing precisely how I will accomplish it at low levels. I may know to move in some direction but count on signage to tell me when I'm getting close. I may know to walk at some pace but count on my eyes to tell me when I need to stop or avoid something.

2012 / 02 / 08

Information is anything that changes the set of objectives or the set of methods for fulfilling said objectives. For example a sign is only informative if it changes ones objectives or ones methods for fulfilling them.

2012 / 02 / 09

Protectionism, or shielding, occurs in information systems, and with good cause. For example, consider the case of solving a separable differential equation. One finds two different constants of integration in the process, and these are combined into a single constant. Looking from the outside, the final solution is correct, but internally constants were "absorbed", renamed, etc. An auditor might see "cheating" at the lower level, but in fact the expert has successfully navigated through shortcuts, rather than having cheated. Protectionism in physics, as described in <Laughline, Pines, "Theory of everything", Science in Transition, 1999 Pnas.pdf>, allows for things to occur at low levels but be obscured at higher levels, and thus allows us to have a broader understanding with less computation than can occur if we're always mired in details.

2012 / 02 / 15

The connection between information and "that which changes ones objectives or methods" (as in the entry of 2012 / 02 / 08) is similar to the connection between vehicle and impact. However, information is not really analogous to the vehicle; the vehicle is more analogous to the symbolic representation of the information. In fact, the vehicle (representation) delivers a package (information), which is characterized by its impact.

2012 / 02 / 22 – 1

Information is what allows for coordination. In a space with limited resources, efficiency is improved dramatically when agents coordinate. Thinking about the etymology of the word *coordinate*, one imagines finding a common coordinate system with another. Doing so requires information to set up, and this seems to often be assisted by the use of landmarks (or "landmark events"), which serve by being widely perceivable. Once the common coordinate system is setup (and hence a language is created), information is passed in terms of that coordinate system to continue the process of coordination -- the ordered interaction of agents.

2012 / 02 / 22 – 3

Another way to discuss the topic of 2012 / 02 / 09 (Protectionism) is via the word "modularity." A module is component of a larger system; however, this

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component has its own functionality, can be reused, is independently deployed, and can be integrated into larger systems. (See <http://spectrum.library.concordia.ca/1923/1/MQ77971.pdf>). This reference says that it's important to know the module's invariants and abstractions, and to ensure that they are respected.

2012 / 02 / 25

In connection with the idea of 2012 / 01 / 30, information is the intermediate result of the transition from high level desires to low-level available actions (AAs). This transition itself is not information, but uses information as currency. (Similarly, when one desires to follow in the footsteps of another, he hopes to find information about the steps the other has taken.)

The mind, in its efforts to convert the high-level task to low-level AAs, runs through many reductions, and each of these has an associated "feeling", just like the desires (very abstract and conglomerate feeling states) and the AAs (very concrete feelings) do. These intermediate feelings can be translated into words just like high-level emotions and low-level sensations can be, and these words yield information about the reduction process.

In general, we humans record our experiences as landmarks and signposts. Information mediates between different experiences, allowing us to translate horizontally between experiences at some level (like converting "I have \$10" to "I can afford a sandwich"), or vertically between experiences of different hierarchical levels (like converting "get me to my appointment in central square" into "put on your jacket and walk out the apartment door").

2012 / 03 / 04

Recognition is a basic issue within information. How is anything recognized? According to Henry Galperin, auditory recognition happens at low levels via resonance: the hairs in the ear vary in length and resonate at accordingly different pitches. In the eye, proteins fold in response to various colors of light. These facts suggest resonance as a method by which information can be transferred.

2012 / 03 / 06

Information has something to do with making different things interoperable. In other words, we need to translate what we know from one context into a language that works in another. Reducing the "impedance mismatch" may be the entirety of our goal.

2012 / 03 / 07 – 1

The purpose of information is to guide an agent toward the fulfillment of an objective.

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The information, when successfully recognized and interpreted, determines to some extent the correct method for operating relevant instruments. (A method of operating instruments is said to be *correct* in the context of an objective if its performance leads toward the fulfillment of that objective.)

What's unclear is exactly how interpreted information hones the method for operating relevant instruments. (By "honing the method" I mean reducing the set of available options to a subset that still contains a correct method.)

However, it could be that interpretation of information **is** the operation of instruments. That is, instead of leading to or honing a method of operation, perhaps we can define interpretation of information **to be** the operation of some instrument (usually mental).

For example, the act of interpreting where the baseball is in its flight may actually **be** an act of operating the decision-making instruments, which in turn produce information for muscles. The interpretation of that muscular information may actually **be** an act of operating the nervous system (instrument) to deliver the message to the muscles. And the interpretation of the message by the muscles may actually **be** an act of operating ATP processes (instruments).

2012 / 03 / 07 – 2

At some point in my day, I might think that my objective is to have clean teeth, but that's not quite right. My objective in actuality is to have pain-free teeth. The information given to me by an expert is that having clean teeth is correlated with having pain-free teeth. But the second formulation is preferable to me, the agent, because it's interoperable with my instruments. Wanting pain-free teeth is not informative – it does not lead to honing methods for operating anything. But wanting clean teeth is informative – it hones my approach to operating my toothbrush. If I further have information about what constitutes non-clean teeth, e.g. plaque and its structural makeup, I can refine my intention to wanting to disallow plaque formation. This further hones my approach to operating my toothbrush.

2012 / 03 / 08 (Rough)

What does information have to do with the operation of instruments? The world is naturally orderable – space and time provide that capacity – and information seems to (always?) rely on spatial or temporal order, the ability to arrange. Information allows us to coordinate and arrange for a specific set of events to occur in an orderly way. For example, my house key is something like information for the deadbolt. It focuses energy in specific spots (so that my energy, as applied to pushing the key into the slot, is transformed into energy applied to lifting certain pins against their springs). My key becomes an instrument at a higher level. Information about how my key is situated in relation to the key-slot guides my operation of the key.

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2012 / 03 / 11

I'd like to trim my beard tomorrow during my shower. I need to deliver that message to my later self, so I put the beard-trimmer on the rim of the bathtub – that way, I'll see it tomorrow during my morning shower. This is a physical version of memory: I'm "memorizing my intention to shave" by recording that fact in my physical environment, rather than in my mental space.

The mechanism is this. I'm handing my-later-self a token which can be readily exchanged for (in the form of an instrument which can be readily used for) the result I want. I know my habit is to take a morning shower, so I find myself there and I hand myself the trimmer.

How is this information? Perhaps information is more abstract and symbolic, e.g. a sign that says, "it is my current intention that on the morning of 2012 / 03 / 12 I will trim my beard." The date resonates with my future self: he sees it, recognizes it as "relevant now", and reaches around to find the trimmer. But I can bypass those steps by handing him the trimmer as in the first paragraph. I'm working now, together with my future self, to achieve an objective.

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Shared or common understanding is always about a subject: if someone says "we share an understanding" then they must be able to answer the question "what do you share an understanding about?" The *about* is the tangible subject of the understanding. And (obviously) when there is shared understanding, then it always exists between parties: one can always identify whom it is that they claim to share an understanding *with*.

When parties share an understanding about a subject, the first requirement is that the parties can recognize when they are in the presence of the subject—when it is *about*. For example, if I share a common understanding with Fred about the purpose for his visit *V*, then we can recognize when we are in the presence of this visit—that is, we both agree that today counts or does not count as part of the visit *V* that we share an understanding about. Or if I share a common understanding with a toddler about what a bird is, then we both recognize when there is a bird in the scene. Or, if Mary and I share an understanding about why I get upset whenever she brings up Nelson, then even though "bringing up Nelson" is not tangible in the sense of being touchable, it is tangible in the sense that it's a phenomenon that we can both identify.

This ability to jointly recognize when the parties are in the presence of the tangible subject is the starting point for co-operation and co-ordination. The next requisite ability is to actually co-ordinate, i.e. have an understanding of each party's orientation to the subject. Mathematically, we could imagine two people on the same affine space and their next goal is to find a common coordinate system, or to understand each other's coordinate system and develop

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translations back and forth (“When you say (x,y) , I call that $(2x+2y,y)$. When I say (x,y) , you call that $(x/2-y,y)$.” “Yes, I agree.”)

At this point, the parties can agree on objectives, ways to operate instruments, etc.

2012 / 03 / 16

What is a plan? A plan is a record of commitment, created by one or more parties, in order to bring about the creation or modification of some tangible subject. Without some level of commitment, the plan is made “in bad faith” and won’t be considered here.

A plan subdivides its tangible subject into components and orders these components. This ordering can involve “series” and “parallel” aspects, where series aspects are ordered in time and parallel aspects are ordered in terms of personnel (including parties involved in planning and those they can enroll).

The parties take responsibility for the execution of their respective components. In other words, each party agrees that it will devote the resources necessary for executing the task. But how can a party ensure that it will have the necessary resources at a future time? How can they agree now to devote these resources at said future point?

From the perspective of a single party, committing to a plan involves an attempt to create a shared understanding with its future self. This is necessary in order to devote the agreed-upon resources to the plan. But how can one create a shared understanding with an entity that is not present? I tend to assume that I am “the same as” my future self, but it is undeniable that we change – if not, plans would never be abandoned or unfulfilled.

I need to consider my current self to be sufficiently similar to my future self that I will ensure the existence and devotion of the necessary resources to execute the assigned task, and in particular that my future self will share an understanding with my current self as to what that task is. So we have reduced all the questions in this entry to a single one: what guarantees sufficient similarity of my current self and my future self?

The answer seems to be that my similarity with my future self is engendered by the fact that we share sufficiently many resources, e.g. my mind. Because no one but me has access to my mind, I can almost guarantee that I’ll be similar in the future to how I am now. I also possess or own certain resources, meaning that others can’t access them easily (e.g. the items in my apartment). My almost complete control over these resources grants me the ability to ensure some similarity between my current self and my future self. I can count on my bed being there, and this allows me to plan to sleep. I can count on my calendar being untouched by others, and this allows me to plan to reference it. If I plan to

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trim my beard and I put the trimmer on the bathtub ledge, then I'm implicitly counting on the trimmer not being moved in the meantime.

Thus it appears that ownership, primarily of the body but also of the possessions, is essential for planning. If everyone had access to everything, we could not guarantee devotion of resources to anything in the future.

2012 / 03 / 20

Information seems to work by resonance. Reading a sentence, it's as though the words are either flowing or jarring, either fulfilling a cadence or violating it, either fitting together or not. When we see information and it's getting across, the feeling is one of smoothness; there is resonance between the expected and the given. When it's not getting across (and hence is not informative) it's like we're always misinterpreting, things aren't making good sense. Syntax in a language is a basic cadence through which a speaker can resonate with a listener. But even the ideas seem to form a song, striking the right sequence of notes so as to be both interesting and yet sensical.

2012 / 03 / 21

It seems that information about something is "what we might find if we had the right sensors". In other words, it gives us a fast track into how something works, what it is, what's special about it, what its identifying marks are, etc. Many, if not all, of these are what we might find if we were there, looking around. For example, a math paper gives information about a subject—it's what you would find if you were thinking about the subject. Or the sign on a business tells us what we might find if we went inside.

One thing to note is that by saying "it's what you might find" and not addressing that to anyone in particular, we are implying the sense in which information is "objective." It's repeatable in that others should find the same things we do, generally.

2012 / 03 / 25

Information is ready to be processed. Consider information about what's in a store. Isn't the store itself information about what's in the store? How does a database of what's in the store differ information-wise from just the store itself? The difference is that the information in the database is ready to be processed. Perhaps etymologically, the available processes for extracting meaningful invariants from the database are more refined or more streamlined than those available for extracting invariants by simply perusing the store.

2012 / 03 / 29

Let us differentiate between a phenomenon X, which can be observed by many people, and a person's impression of X, which is the change that said person undergoes as a result of noticing X. By *impression* we will always mean an

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impression resulting from a phenomenon. We may elide the difference between a phenomenon and its resulting impression on an individual person.

Each person's mind is designed to compare, in particular to find patterns in, phenomena. We say that one phenomenon *resonates with* another if the two are comparable in this way, i.e. if they seem to "touch the same spot" in us.

Language is a way to convert our impressions of phenomena into expressions. We will refer to the expression arising from a person's (P's) impression of a phenomenon X simply as P's *expression of X*. These expressions become new phenomena. Hence we can compare our expression to the phenomenon that generated it. We say that our expression *reflected the phenomenon* if, and to the degree that, our expression of it resonates with our original impression of it.

A set of people can know that they are co-present to the same phenomenon P by each expressing their impression of P and finding that the other members' expressions resonate with P. At its most basic, two people are said to *meet* if they can create resonating expressions.

Co-presence seems to have order. For example, if two people are co-present to the same room, then they are generally co-present to the sounds or objects within the room. If two people are co-present in space but not time (I'm currently in the room that you were in earlier) then upon meeting later they can prove their earlier spatial co-presence by finding resonating expressions of that space.

2012 / 04 / 13

Locally-perceptive agents need to coordinate in order to solve global problems. Suppose that two people A and B, stationed at different posts, want to find the speed of jets that fly overhead. Every time a jet flies over A, he records the relevant information, including the time, and sends it to B; and vice versa. If B notices a jet with the same characteristics as that described by A, he records the relevant information, including the time. They use these data to answer their question. Information is what allows these locally-perceptive agents to solve global problems.

2012 / 04 / 19

Information seems to always be about the structure of reality. This terminology is ambiguous, so I will clarify. When one thinks about "the structure of reality" one might think about the way that things work in general, the fastening together of the physical or phenomenological universe. Let's call this the *persistent structure of reality*. But there is also the current layout of reality: where the oceans are in relation to the land, how to find the nearest grocery store, how someone is feeling, etc. Let's call this the *current structure of reality*.

When I say that information is about the structure reality, I mean it's about either the persistent or the current structure of reality, but always in terms of the

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persistent structures. The persistent structures give us reusable terms with which to discuss the current structure, which is always our primary concern.

2012 / 04 / 25

Information is the distilment of projects. For example, information in a natural scene is the realization of what projects by man or other life form brought about various features. Information in a database is always in reference to a project or a set of projects. Projects are like forces. Newton's postulate that whatever is at rest tends to stay at rest unless acted on by a force is more a way to view the world than it is a truth. We view the world as staying stationary unless acted on, and then we gather information about the actors.

2012 / 04 / 29

It seems that the concepts and ideas discussed in a philosophy book, such as by Sartre, could not really be called information. If Sartre says that the for-itself is always struggling to become its own foundation, that's not really information, is it? That Sartre was born in 1905 is information, that Sartre believed that the for-itself is always struggling to become its own foundation is information. But Ralston's claim that "beliefs and assumptions more than bias or influence our experience, they completely dominate it" cannot rightly be called information.

This observation brings up two questions. The first is, "then what makes something information?" The post of 2012 / 04 / 19, asserts that information is always about the structure of reality, but philosophical statements do fall within that realm. So what distinguishes information? The second question is, "then what do you call the above philosophical statements, if not information?"

Perhaps I'm actually more interested in the broader class, the one including Sartre and Ralston, if it can be properly named and isolated.

2012 / 05 / 05

Information is the substrate on which understanding exists. Understanding is grounded on information. Information is the *facticity* to understanding's *freedom*. That is, understanding is a free endeavor of putting together the available information, which on its face appears completely contingent, into patterns and motifs that explain and predict.

2012 / 05 / 06

Information is a report of findings. "I did X and I saw Y." The recipient of that report interprets it according to the following rule. If he considers himself to be, in the relevant respect, similar to the reporter, he will take the report to mean that had he himself done X, he would have seen Y. But if he considers himself to be different than the reporter, he will hopefully have a salvaging rule that converts the reporter's experiences to guesses about what he might have experienced in the reporter's stead, together with information about the reporter. "John says he

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saw a weird guy, but John thinks every tall person is weird. My guess is John just saw a tall person”.

2012 / 05 / 18

When contemplating the nature of information, one may consider the dichotomy of *presented information* vs. *extracted information*. The former is what is found in databases and dictionaries, the latter is what is gathered from a natural scene. What do they have in common?

Information is simply that which is in formation. To say “this is information” is to say, “this is in formation”. In other words, something has been gathered together and sorted, brought into a recognizable formation. A synonym would be “in order”.

To present information, say in a dictionary, the authors gather a set of words and list them in alphabetical order. Each word is followed, predictably, by a pronunciation and a numbered series of definitions. All of this is done in formation.

To gather information from a natural scene, we expend the time and effort necessary to parse the scene into a set of recognizable entities, such as a tree, a sidewalk, a person, a game being played. Each of these is itself a formation, and the scene in total is classified according to the relevant information, that is, the formation in which the relevant objects are related.

2012 / 05 / 23

Information is founded entirely on commitment. Information is there to be used—it is as though our feet press against the rock of information and we use it to lift ourselves to a new height. But how can we put our weight on information; what is it based on? Where does information find its ground?

If we knew the database storage device was faulty, we could not trust the information therein; we’d consider it ungrounded. If we did not trust that the person entering data cared about its accuracy, the information would be useless. If we thought that the data could change and yet the database not be accordingly updated, then we would consider the database defunct and the information contained within to be stale. The website LinkedIn only works because everyone is committed to updating their page if they change their job.

It is only the commitment of he who records information, the integrity of the storage medium (an integrity which can be seen as a kind of commitment), the commitment of the administrator to keep up to date, etc.—it is only these commitments that found information in its essence.

Indeed, even the symbolic representation of information (like each word on this page) relies on the cultural commitment to reserve these symbols and words.

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Symbols and words are not inherently meaningful, and we see words like “gay” and letters like “y” change their meaning or pronunciation over time. If π were to begin meaning 6.28 rather than 3.14, all old texts that include it would be instantly wrong; It is only our commitment to traditional symbols that allow them to hold information.

2012 / 06 / 14

A project gives us a way to put an “importance distribution” on our local scene. That is, given a project and a local scene, we have a distribution of what parts of that scene are most important to attend to. Our attention on a given aspect is designed to ascertain the formation of that aspect, to classify it, and hence turn it into information. That information is evaluated with regards to the question “How much energy do I need to apply to this aspect in order to make it work for my project.” If that answer is 0, i.e. if that aspect is in a formation that’s compatible with our goals, then we need not bother with it. We can turn our attention elsewhere, merely keeping an eye on it to make sure it doesn’t change. If the answer is too high, then we may look for a work-around. Otherwise, we apply the energy when we see fit.

2012 / 06 / 15

Projects are often serialized as paths (or routes), such that traversing the path will result in successful completion of the project. For example, I want to type this entry (project) so I sit down, open up the document, move to the right place, begin thinking, etc. (path). As another example, if I want to go to the hardware store (project), I get up and follow a route to it.

As we traverse the path, a local dilation occurs. In order to get from A to B, we choose a path by which to do it, and the traversal of this path consists of a local dilation at each point. The path begins with a neighborhood of A being dilated, and the path ends with a neighborhood of B being dilated. For example, as I go from here to the hardware store, I see flowers at one point, hear a conversation at another point, see a stoplight at a third point. All these were unexpected and occurred within the local dilation corresponding to an intermediate moment between start and finish. Whatever is “here now” is dilated; as I leave the vicinity it contracts.

The dilation always suspends the local environment, where objects that are less immediate are contracted in our minds. For example, birth and death seem to be points without quality.

Suppose we are on the path of a certain project. As we traverse this path, we are always at some point along the way, a neighborhood of which is dilated. Within this dilated environment are many things of interest. Some are of interest because they are relevant to our current project. We examine them and ensure that our path is still tenable. But we generally have running in the background many other projects as well, and the items in the dilated environment may be

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relevant to these other projects. We classify each formation according to each project to which it relates. Often during the traversal of our path toward some end, we become absorbed in one of our other projects and hence become distracted, off track from, our current path.

2012 / 06 / 19

We're constantly sending and receiving messages. Receiving a message includes decoding it, making sense of it. Decoding a message results in an action—always, it seems—and this action generally is called a “change of state” in the decoder or its surroundings. The change of state is directed by the message, and includes both a change in the interpretive context and a change in the environment.

The whole thing fits nicely with the mathematical notion of Turing machine, but this is not how I came to it. While walking I read a “Do not enter” sign and noticed that my interpretation of this message led to a realization that “it’s meant for cars and doesn’t matter to me”. This was a change in state: I no longer needed to read the sign; and my eyes flitted elsewhere, resulting in a new visual environment.

The process of decoding messages and changing state often occurs within a frame. I'm thinking here of the computer, the brain, or the womb. In each case, messages are flying around both in and out of the frame, but the frame regulates the set of messages entering and leaving it. The progress of the internal system is only known in aggregate by outside observers. The computer is processing or outputting results, the person is thinking or speaking, the mother's belly is showing or she has a baby in her arms.

The student of Differential Equations may work out the problem on scratch paper first. Certain messages never see the light of day, but in aggregate it shows. (See the entry of 2012 / 02 / 09).

Is there a Stokes theorem for surface revelation of aggregate information processing in a system?

2012 / 06 / 25

Information exists only within the context of an agreement on the interpretation of certain signal configurations. A signal configuration that adheres to an agreed-upon syntax can be taken as a whole and interpreted as referencing some aspect of reality. A signal itself is a configuration of sub-signals, but it seems that an individual person resides at a certain range of levels within this hierarchy. For example it may be that I interpret two to three levels of signals in the hierarchy, unaware of the lightning-fast processing at low levels, and typically immersed and absorbed but not cognizant of what might be deemed signals at a higher level.

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We constantly perceive changes in our environment, and these changes occur at different “levels”. Changes at higher levels seem to be aggregates of changes at lower levels (though some philosophers such as Sartre disagree, saying that the gestalt is first and the details come after), but at least the higher is *explainable* in terms of the lower. Perhaps when we perceive a high-level change, we go searching for lower-level changes that can explain it, stopping when the explanation is complete.

Either way, we aggregate the lower-level changes into a higher-level story. Even a single word such as “polished” or “cute” is a story. Some stories don’t have single words or short phrases that can capture them, but shorter stories seem to be more powerful.

Perhaps it is for this reason that we reuse stories. For example, speaking of a performance as “polished” is a reuse of a term. We speak in metaphors because we have only a limited space of new words. It’s useful if we can find a short story that describes a large swath of the new situation, so we reuse and speak in metaphors. But in order to be useful, these metaphors have to help navigate us through the situation. Categorizing someone as polished, slick, impotent, etc. is useful in helping us deal with them.

This reuse in metaphor is quite interesting from a database standpoint. Is it done there? Perhaps money is a constantly reused metaphor; one uses the same money to buy the iPod as another uses to buy the materials that go into making the iPod.

2012 / 07 / 18

Information often has the character of *authorlessness*. A street sign wasn’t written by someone, it’s just there. We aren’t supposed to think of a dictionary or atlas as authored, because that leads to the idea that they come from a perspective that isn’t our own – they become suspect. We prefer to think of information as *just true*, given; we take its validity for granted.

Much, or all, of our view on the world is the outcome of deliberate human construction. The street sign, the map, the dictionary—these are not givens, they were created by people, often in order to provide a service to me, even if the concrete “me” was abstract for the authors. Even the notion that X is a table or a pipe was created: someone created the idea of tables and pipes, others accepted its importance, reproduced it, told their children about it. The table *qua* table was constructed by repeated human efforts—it is not a given.

2012 / 07 / 19

Information is often idealized, in the sense that it is conceived to be something that it is not. In particular, it is often conceived to be authorless (see the entry of 2012/07/18) and receiver-less.

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For example, the sense in which a dictionary contains information seems to sweep under the rug the fact that it was written by someone. It also wasn't written for anyone, or perhaps it was written for an idealized recipient—the English speaker. And yet, it is never read by the ideal English speaker, it is always read by a particular person at a particular time. Similarly, it held as written by an idealized author—the English expert—but again this is not really the case: it is written by a particular person (who indeed is presumably classifiable as an English expert).

2012 / 08 / 31

"Information about X" = "An account of X, given an appropriately methodical study of X". Here, methodical means that result is steady under repeated trial.

Information about what sandwich I want is an account of what sandwich I want, given an appropriately methodical study of what sandwich I want. The study aspect comes from checking out my feelings on the subject. It's methodical enough to count as information if I'm not wavering in my desire—the result is steady under repeated trial.

Similarly, to give someone *information* about how many words are in a document, is to give someone *an account* of how many words are in the document, given an appropriately methodical study of that – namely I would count the words in order. This, as opposed to counting like a small child might, in which I seem to point at different words randomly. The latter would not be appropriately methodical because there's no hope that repeating the experiment would yield the same results.

2012 / 10 / 04

There are some common structures in our survival. One is reaping and sowing. This terminology comes from planting seeds in the earth, letting time pass during which natural processes take place, and then taking the results for our purposes. But a similar structure occurs when we purchase an airplane ticket in advance, fill a bottle with water for later, or read a book to familiarize ourselves with a subject.

Another structure in survival is packing and unpacking. Packing tends to include insulating, whereby what is in the pack is less affected by what occurs outside the pack. Packing also typically features condensing the size of something at the cost of accessibility. The exterior of the pack is generally convenient for handling. This is most familiar in terms of the physical world, e.g. a suitcase or a folder for a document. But also one can consider packets of information moving through the internet. Advertisements attempt to package large and complex ideas into small chunks, knowing our minds will readily take on the task of unpacking them.

2012 / 10 / 06

What is information?

Information comes to us in a form that suggests an interpretation framework. This interpretation framework cannot be novel to the reader—it has to already be familiar, i.e. the reader has to already have been educated or in it. I believe that an interpretation framework is called a hermeneutic.

How is a hermeneutic suggested to us by the presentation? Is this document a collection of words written about something, or is it just a collection of words that someone randomly wrote down? Is it even words in English, or is it a sequence of scrawls? The very fact that it occurs in a word-processing document suggests the hermeneutic that these scrawls are words, and the reasonably good grammar suggests that it was written reasonably carefully. However none of this would be suggested to a child having too little experience.

A hermeneutic *H* seems to be suggested when the presentation “snaps to grid” within it. If things seemed random in a particular hermeneutic, it would be worthless. The fact that everything falls into place in this particular hermeneutic is what “suggests” it.

Consider the case when a mother hears her child utter the sound “momma.” The mother may judge whether the sounds were clearly in their slot or whether they were ambiguous, whether the context aligns with the child requesting his mother or whether perhaps the child is asleep or just making random sounds. Is the sound repeated or was it a singular event.

We know we are talking on the same “wavelength” or channel if the symbols that arrive through that channel fit nicely into slots. If there is too much ambiguity, if terms don’t individuate or cohere as expected then the channel appears to be inadequate for communication. Returning to the ideas at the beginning of this post, the hermeneutic for interpreting presented information is generally taken to be whatever maximizes this slotting, whatever works to keep a steady rhythm of fulfilled expectations.