

StratML and the Organized Mind

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In *The Organized Mind: Thinking Straight in the Age of Information Overload*, Daniel Levitin introduces his treatise with this observation:

We humans have a long history of pursuing neural enhancement – ways to improve the brains that evolution gave us. We train them to become more dependable and efficient allies in **helping us to achieve our goals**. (p. xiii, emphasis added)

Enabling the documentation and sharing of goals in an open, standard, machine-readable format is a key purpose of the Strategy Markup Language (StratML) standard.

Prior to the invention of writing, Levitin notes human memory was the only means of recording important information but memory “is fallible ... not because of storage limitations so much as *retrieval* limitations.” Not only is memory unreliable, he says, but “we show staggering overconfidence in many recollections that are false.” To overcome our human limitations, “the most successful members of society ... have learned to maximize their creativity, and efficiency, by organizing their lives so that they spend less time on the mundane, and more time on inspiring, comforting, and rewarding things in life.” (p. xiv)

Levitin suggests two ways to improve the process are to focus on how we enter information into memory (encoding) and how we retrieve it. (p. xx) StratML addresses the first process directly. It is an open, standard way of encoding longer-term goals and near-term objectives, and since it generates machine-readable documentation, value-added intermediaries can easily aggregate and index such information to facilitate retrieval exactly when and where needed (Just-in-Time delivery).

Levitin says companies are called business organizations for a reason, because they are like “expanded brains, with individual workers functioning something like neurons. Companies tend to be collections of individuals united by a **common set of goals**, with each worker performing a specialized function. Businesses typically do better than individuals at day-to-day tasks because of distributed processing... systems and redundancies are usually in place ... to ensure that no one person’s momentary distraction or lack of organization brings everything to a grinding halt.” (p. xxi, emphasis added)

Most, if not all, companies have business plans that are more or less formal and the concept of “strategic alignment” implies that all of the company’s employees and resources are being optimally applied toward the realization of its business objectives. However, in actual practice the lip service paid to the concept of strategic alignment may be more rhetorical than motivational. At least the degree to which it is actually being practiced is unclear and thus doubtful unless it is being measured and reported to stakeholders. StratML enables widely distributed processing while also facilitating measurement and reporting of performance results, which can be used to develop benchmarks for efficiency and effectiveness and, thus, strategic alignment.

Levitin says, “Conscientiousness comprises industriousness, self-control, stick-to-itiveness, and desire for order. And it ... is the best predictor of many human outcomes ...” (p. xxv) [Wikipedia](#) defines conscientiousness as follows: “Conscientiousness is the personality trait that is defined as being thorough, careful, or vigilant; it implies a desire to do a task well. Conscientious people are efficient and

organized as opposed to easy-going and disorderly.” Depending upon complexity and the amounts of time, effort, and resources required, the achievement of goals may entail not only conscientiousness but also a good, well-developed plan. Without such plans, well conceived and well executed, many human outcomes fall far short of the optimum.

On the other hand, Levitin notes, “Satisficing is one of the foundations of productive human behavior; it prevails when we don’t waste time on decisions that don’t matter ... trying to find improvements that are not going to make a significant difference in our happiness or satisfaction.” (p. 4) So many more or less productive things that we do may not warrant much thought, much less detailed plans – if they are unlikely to materially affect our wellbeing.

As Levitin observes, “happy people are not people who have more; rather, they are ... happy with what they already have. Happy people engage in satisficing *all of the time* ... satisficing is a tool for not wasting time on things that are not your highest priority.” On the other hand, he says, “For your high-priority endeavors ... pursuit of excellence remains the right strategy.” (p. 5) And due to the weaknesses of the human mind, those things that are truly important warrant written plans that are sufficiently detailed to maximize prospects for success.

In light of volatility of human emotion as well as the fallibility of perception, consciousness, and memory, it is a wonder (wonderful) that we lead as happy and productive lives as we do without being more conscientious. However, even as we satisfice and appreciate what we have, few of us are truly satisfied in the sense of disbelief that we might be able to do better ... and that is a good thing, because it gives us cause to continue to strive for greater meaning in our lives.

Moreover, to the degree that we may wish to accomplish more and greater things, Levitin’s suggestion that the “pursuit of excellence remains the right strategy” implies more than might be taken from a casual interpretation of his phrase. It is not merely the “pursuit” that matters but also the “strategy” – the strategic plan, i.e., the longer-term goals and near-term objectives to be achieved. “High-priority endeavors” in particular warrant high-quality documentation, and to the degree they may require the engagement of others, they should be openly shared with those whose performance partnership is needed.

Unless we measure not only inputs, processes, and outputs but also outcomes, we lack the means to know whether we are making improvements that truly matter. Anyone’s perception is as good as anyone else’s and the powers-that-be will dictate their perception of reality to the masses, regardless of whether they agree with such perceptions or not. Indeed, *control myths* have the insidious effect of causing us to accept the power of others over us, as if we have no other option.¹

Levitin says that both ignoring and deciding impose burdens on our brains and “unproductivity and loss of drive can result from *decision overload*. Although most of us have no trouble ranking the importance of decisions if asked to do so,” he observes, “our brains don’t automatically do this.” (p. 5) Indeed, he emphasizes, “*The decision-making network in our brain doesn’t prioritize.*” Moreover, he says, “We have trouble separating the trivial from the important, and all this information processing makes us tired.” (p. 6) In addition, “in order for something to become encoded as part of your experience, you

¹ For more information on control myths, see <http://ambur.net/toxicleaders.pdf> and/or Jean Lipman-Blumen’s August 2008 [paper](#) entitled “Control Myths: How Followers Unwittingly Keep Toxic Leaders in Power”.

need to have paid attention to it.” Thus, he argues, “Attention is the most essential mental resource for any organism.” (p. 7) And that’s why “Successful people – or people who can afford it – employ layers of people whose job it is *to narrow their attentional filters.*” (p. 8)

Obviously, that works satisfactorily for successful people, at least some of the time, if not most of the time. However, it also entails the well-known risks associated with confirmation bias, group think, and in-group favoritism/out-group derogation.² Regardless of whether such risks are acceptable to any of us in particular, Levitin says that for all of us:

Two of the most critical principles used by attentional filters are *change* and *importance*. The brain is an exquisite change detector ... importance can also let information through [however] importance is not just something that is objectively important but something that is personally important to you... The attentional filter is ... fairly sophisticated. It is capable of monitoring lots of different conversations as well as their semantic content, letting through only those it thinks you will want to know. (pp. 10 & 11)

So the question is whether we want to simply rely upon the innate, subjective capabilities of our human brains to determine what will demand our attention at any particular point in time or whether we choose to make our desires explicit and employ a more or less formal plan, outlining our longer-term goals and near-term objectives, to help direct our attention.

In that regard, Levitin asserts, “More than ever, effective *external* systems are available for organizing, categorizing, and keeping track of things...” However, many organizations don’t do a particularly good job of making sure their “things” are all optimally aligned to accomplish their strategic objectives, and even the most highly effective people would probably agree they could do better in that regard.³ Levitin, says, “Productivity and efficiency depend on systems that help us organize through categorization” and “Fundamentally [that is because] categorization reduces mental effort and streamlines the flow of information.” (pp. 12 & 13) Again, however, many organizations do not enjoy information flows that are both streamlined as well as strategically aligned to optimize their performance.

With respect to the historical origins of documentation, Levitin apologizes to the romantics: “The first forms of writing emerged not for art, literature, or love, not for spiritual or liturgical purposes, but for business – all literature could be said to originate from sales receipts (sorry).” (p. 13) That observation is telling in that it highlights the fact that, while other forms of communication may be suitable for other purposes, for the purpose of business there is no substitute for good, complete, and reliable records.

Levin notes the “information explosion is taxing all of us, every day, as we struggle to come to grips with what we really need to know and what we don’t.” (p. 15) Our struggle may be compounded if we have not taken the time and effort to determine, if not also to document, what we want to try to achieve both in the long run as well as in the near term. Such failure begs the question not merely of what we

² http://en.wikipedia.org/wiki/Confirmation_bias, <http://en.wikipedia.org/wiki/Groupthink> & http://en.wikipedia.org/wiki/Ingroups_and_outgroups

³ Donald Norman has persuasively argued that it is “things” that make us smart. <http://ambur.net/smart.pdf>

need to know but also why we need to know it. Are we simply to rely upon our reptilian brains?⁴ Or should we employ our prefrontal cortex?⁵

Besides change and importance, Levitin highlights the difficulty of *attentional switching*. He notes that shifting attention is mentally taxing. Moreover, he says, “a funny thing happened on the way to the twenty-first century: The plethora of information and the technologies that serve it changed the way we use our brains. Multitasking is the enemy of the focused attentional system. Increasingly, we demand that our attentional system try to focus on several things at once, something that it was not evolved to do... Once on a task, our brains function best if we stick to that task.” (p. 16)

With reference to our evolutionary origins, Levitin points out: “Something can grab your attention automatically, usually something that is salient to your survival ... This is the *vigilance* system ...” Unlike other creatures, however, he notes that we can *will* ourselves to focus only on that which is relevant. “When we willfully retune sensory neurons” he says, “our brains engage in top-down processing, originating in a higher, more advanced part of the brain than sensory processing.”⁶ (pp. 17 & 18)

Levitin observes that our brains are constantly assimilating the information inundating us “because that is what it is designed to do, but at the same time, all this *stuff* is competing for neuroattentional resources with the things we need to know to lead our lives... it’s not that we need to take in less information,” he suggests, “but that we need to have systems for organizing it.” (p. 19) With respect to the documentation of goals and objectives that are important and will require concerted effort to achieve, the “system” for organizing them is commonly known as a strategic plan.

Levitin says, “We are easily swayed by first-person stories and vivid accounts of a single experience. Although this is statistically wrong and we should learn to overcome this bias, most of us don’t... Our brains focus on vivid, social accounts more than dry, boring, statistical accounts.” (p. 21) Reflective of this bias is the desire of organizational leaders to document and report “success stories” rather than actual performance metrics. In many circles, looking good is still more highly valued than performing well, a dynamic that is well-supported as well as made self-evident by our preference for good, coherent, highly selective yet believable short stories over boring statistics that require a more lengthy, complete, and complicated narrative, which may not only tax our mental capacity but also challenge our personally biased beliefs.

Indeed, Levitin notes that “*functional categories* [promote] cognitive economy by combining into a single category things that most of the time we don’t need to think about in great detail... [based upon] their function in *our* lives – or our goal.” (p. 29) In other words, for most of us, most of the time, the factual details of any particular case may be irrelevant. Our biased beliefs may be sufficient. Further thought, much less detailed planning, may be a waste of time.

Moreover, Levitin points out that our natural desire for knowledge can cut two ways and thus “can be at the roots of our failings or our successes. It can distract us or it can keep us engaged ...” He says, “Some learning enhances our lives, some is irrelevant and simply distracts us.” However, the case is actually worse than he describes because our quest for knowledge often does more than merely distract us; it

⁴ http://en.wikipedia.org/wiki/Triune_brain

⁵ http://en.wikipedia.org/wiki/Prefrontal_cortex

⁶ Norman the greatest peril associated with poorly designed and misused cognitive tools is “experiencing when one should be reflecting ... where entertainment takes precedence over thought.” <http://ambur.net/smart.pdf>

may dramatically mislead us. For example, believable but unfounded rumors may lead us to take actions that are detrimental to others, if not also ourselves.⁷

Be that as it may, Levitin notes, “Successful people are expert at categorizing useful versus distracting knowledge... One thing HSPs do over and over every day is *active sorting*, what emergency room nurses call *triage* ... you separate those things you need to deal with *right now* from those that you don’t.” (p. 33) However, how can we determine what needs to be done immediately from that which can wait or need not be done at all if we have not clearly specified not only our longer-term goals but also the near-term objectives that must be accomplished in order to achieve the larger goals that are personally important to us but unattainable on the spur of the moment?

Levitin suggests, “Active sorting is a powerful way to prevent yourself from being distracted... knowing that what you are doing is the most important thing for you to be doing at the moment is surprisingly powerful... The most fundamental principle of the organized mind ... is to shift the burden of organizing from our brains to the external world.” (p. 35) But, again, how can we know that what we are doing at any particular point in time is indeed the most important thing we might be doing if we have not specified both our near-term objectives as well as our longer-term goals?

Echoing points previously made by Daniel Schacter, Levitin asserts: “Memory is fiction. It may present itself to us as fact, but is highly susceptible to distortion. Memory is not just replaying, but a rewriting... the more we can externalize memory through physical records ... the less we must rely upon our overconfident, underprecise memory... the best-remembered experiences are distinctive/unique or have a strong emotional component.”⁸ (p. 50)

Levitin notes, “Neurons are living cells, and they can connect to one another in trillions of different ways. These connections don’t just lead to learning – the connections *are* the learning.” (p. 63) In a similar vein, [John Gage](#) has been credited with coining the thought that “The network is the computer.” The vision of the StratML standard is: ***A worldwide web of intentions, stakeholders, and results.*** A logical extension of those thoughts is that the StratML-enabled Web (the *Strategic Semantic Web) will help connect us to each other based upon shared values and common objectives, thereby enabling all of us to engage in life-long learning in the pursuit of continuous improvement in the realization of our high-priority goals.

In support of using 3X5 inch cards to document and keep track of goals, Levitin makes a key point which explains why the strategic plans compiled by organizations are often not taken seriously, much less followed rigorously on an ongoing basis:

Priorities change and the random access nature of the cards means you can put them wherever they will be most useful to you... The essential point ... is that during your daily sweep through the cards, you have to do something with that index card – you do something about it now, you put it in your abeyance pile, or you generate a new task that will help to move this project

⁷ In *Rumor Psychology: Social and Organizational Approaches*, Nicholas DiFonzo and Prashant Bordia assert, “Rumors are an enduring feature of social and organizational landscapes. They attract attention, evoke emotion, incite involvement, affect attitudes and actions – and they are ubiquitous.” For more on their views of the psychology of rumors, see <http://ambur.net/rumors.pdf>

⁸ *The Seven Sins of Memory: How the Mind Forgets and Remembers.* <http://ambur.net/memorysins.pdf>

forward. The index card system is merely one of what must be an infinite number of brain extension devices ... (p. 73)

Strategic and performance plans and reports are commonly published in static, serial format with the intent of making them “look” good. Publishing them in a dynamic, machine-readable format like StratML enables value-added intermediary services to aggregate and index the goals and objectives they record for random access, whenever and wherever they can be most productively used. Therein lies the potential for software tool, application, and service developers and providers to help make the Web a well-organized, highly efficient extension of our imprecise and increasingly cluttered minds.⁹

⁹ A listing of some of the types of tools, apps, and services that will be required is available at <http://xml.fido.gov/stratml/draft/StratMLToolList.htm>