The Organized Mind.

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Introduction.

- Thinking about one memory tends to activate other memories.

Chapter 1: too much information, too many decisions.

- Satisficing: Simon wanted a word to describe not getting the very best option but one that was good enough.
- Satisficing is a tool for not wasting time on things that are not your highest priority. For your high priority endeavors, the old-fashioned pursuit of excellence remains the right strategy.
- All this ignoring in deciding comes with a cost. Neuroscientists have discovered that productivity and loss of drive can result from decision overload.
- It's as though our brains are configured to make a certain number of decisions per day and once we reach that limit, we can't make any more, regardless of how important they are.
- Neurons are living cells within a metabolism; they need oxygen and glucose to survive and when they have been working hard, we experience fatigue. Every status update you read on Facebook, every tweet or text message you get from a friend, is competing for resources in your brain with important things like whether to put your savings in stocks or bonds, where you left your passport or how best to reconcile with a close friend you just had an argument with.
- Attention is the most essential mental resource for any organism.
- In the course of my work as a scientific researcher, I've had the chance to meet governors, cabinet members, music celebrities and the heads of fortune 500 companies. They skills and accomplishments vary, but as a group, one thing is remarkably constant. I've repeatedly been struck by how liberating it is for them not to have to worry about whether there is someplace else they need to be, or someone else they need to be talking to. They take their time, make eye contact, relax and I really that with whomever they are talking to. They don't have to worry if there is someone more important they should be talking to at the moment because their staff – that external attentional filters – have already determined for them that this is the best way they should be using that time. And there is a great amount of infrastructure in place ensuring that they will get to the next appointment on time, so they can let go of that nagging concern as well.
- Productivity and efficiency depend on systems that help us organize through categorization. Fundamentally, characterization reduces mental effort and streamlines the flow of information. We are not the first generation of humans to be complaining about too much information.
- Our brains evolved to focus on one thing at a time.
- Telephone operators used to look up numbers for us. Some companies the longer send out bills for their services – we are expected to log onto their website, access our account, retrieve our bill, and initiate an electronic payment; in effect, do the job of the company for them. Collectively, this is known as shadow work – they represents a kind of parallel, shadow economy in which a lot of the services we expect from companies have been transferred to the customer.
- Each of us is doing the work of others and not getting paid for it. It is responsible for taking away a great deal of the leisure time we thought we would all have in the 21st century.

- We are social creatures. 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 the bias, most of us don't. Advertisers know this, and this is why we see so many first-person testimonial advertisements on TV. "I lost 20 pounds in two weeks…"

Chapter 2: the first things to get straight.

- Daydreaming and mind wandering, we now know, our natural state of the brain. This accounts for why we feel so refreshed after it, and my vacations and naps can be so restorative.
- The tendency for the system to take over is so powerful that its discoverer, Marcus Raichel, named it the default mode. This mode is a resting brain state, when your brain is not engaged in the purposeful task.
- In stark contrast to this misperception, neuroscientists have recently discovered that parts of the brain can fall asleep for a few moments or longer without realizing it. At any given moment, some circuits in the brain may be off-line, slumbering, recouping energy, as long as we are not calling them to do something for us, we don't notice.
- Is there any rhythm or reason about which experiences will be able to remember accurately versus those we won't? The two most important rules that are that the best remembered experiences are distinctive/unique or have strong emotional components.
- Events or experiences that are out of the ordinary tend to be remembered better because there is nothing competing with them when your brain tries to access them from its storehouse of remembered events.
- The second principle of memory concerns emotions. If something made us incredibly frightened, elated, sad or angry – for the primary human emotions – we are more likely to remember it. This is because the brain creates neurochemical tags or markers that accompany the experience and cause it to become labeled as important. It's as though the brain took a yellow fluorescent highlighter to the text of our day, and selectively marked up the important parts of the day's experiences. This makes evolutionary sense – the emotionally important events are probably ones that we need to remember in order to survive, things like the growl of a predator, the location of a fresh new water spring, the smell of rancid food, the friend who broke a promise.
- Unfortunately, the existence of such emotional tags, while making memory retrieval quicker and easier, does not guarantee that the memory retrieval will be more accurate. Here is an example. If you're like most Americans, you remember right where you were when you first learned about the World Trade Center twin Towers in New York City had been attacked. You probably remember the room you are in, roughly the time of day, and perhaps even who you were with or create spoke to that day. You probably also remember watching the horrifying television images of the airplane crashing into the first tower, and in about 20 minutes later, the image of the second plane crashing into the second tower. Indeed, according to a recent survey, 80% of Americans share this memory. But it turns out this memory is completely false. The television networks broadcasted real-time video the south tower collision on September 11, but the video the North tower collision wasn't available and didn't appear on broadcast television until the following day, on September 12. Billions of Americans saw the videos out of sequence, seeing the video of the south tower impacted 24 hours earlier than the video of the north tower. But the narrative we were told and knew to be true, that the north tower was hit about 20 minutes before the south

tower, caused our memory to stitch together the sequences of events as they happened, not as we experience them. This caused a false memories so compelling that even Pres. George W. Bush falsely recalled seeing the north tower get hit on September 11, although the television archives show this to be impossible.

- If you're like most people, you remembered a few of the words. 85% of people write down rest. Rest is the first word you saw, and this is consistent with the primary effect on memory: we tend to remember best the first entry on the list. 70% of people remember the word night. It was the last word you saw, and is consistent with the recency effect: we tend to remember the most recent items we encounter on the list, but not as well as the first item. For lists of items, scientists have documented a serial positional Kurt, a graph showing how likely it is an item will be remembered as a function of its position on the list. You almost certainly didn't write down aardvark, because it wasn't on the list – researchers typically throw in a test question like this to make sure their subjects are paying attention. About 60% of people tested write down sleep. But if you go back and look for now, you'll see that sleep was on the list! You've just had a false memory, and if you're like most people you were confident when you wrote it down. How did this happen? Its due to the associational networks described in the introduction – the idea that if you think of red, it will activate other memories or conceptual nodes through a process called spreading activation. The same principle is at work here; by presenting a number of words that are related to the ideas sleep, the word sleep became activated in your brain. In effect, this is a false memory, a memory you have had for something that didn't actually happen. The implications of this are far-reaching. Skillful attorneys can use this, and principles like it, to the clients advantage by implementing ideas and memories in the minds of witnesses, juries and even judges.
- Changing a single word in a sentence can cause witnesses to falsely remembers seeing broken glass in the picture. Psychologist Elizabeth Loftus showed videos of a minor car accident to participants in an experiment. Later, she asked half of them, "How fast were the cars going when they hit each other?" And she asked the other half, "How fast were the cars going when they smashed into each other?" There were dramatically different estimates of speed, depending on that one word, smashed versus hate. She then had the participants back one week later and asked, "Was there any broken glass at the scene?" There was no broken glass in the video. People were more than twice as likely to respond yes to the question if they had been asked with the words smashed in the question.
- To make matters worse, the act of recalling a memory thrusts it into a liable state where is new distortions can be introduced: then, when the member is put back or restored, the incorrect information is grafted into it as though it were there all along. For example, if you recall a happy memory while you are feeling blue, your mood at the time of the retrieval can color the memory two point that when you restore it in your memory banks, the event gets coded as slightly sad. Psychiatrist Bruce Parry sums it up: "we know today that, just like when you open a Microsoft Word file on your computer, when you retrieve a memory from where it is stored in the brain, you automatically open it as an edit. You may not be aware that your current mood and environment can influence the emotional tone of your recall, your interpretations of events, and even your beliefs about which events actually took place. But when you save the memory again and place it back into storage, you can inadvertently modify… This can bias how and what you recall the next time you pull up that file. Over time, incremental changes can even lead to the creation of memories of events that never took place.

- Alan noticed that when he made a big list of everything that was on his mind, he felt more relaxed and better able to focus on his work. This observation is based in neurology. Only have something on our minds that is important – especially at to do I do — we are afraid will forget it, so our brain rehearses it, tosses it around and around in circles and something that cognitive psychologists actually refer to as the rehearsal loop, and network of the brain regions that ties together the frontal cortex just behind your eyeballs. This rehearsal loop evolves in the world that has no pens and paper, no smart phones or other physical extensions of the human brain; it was all we had for tens of thousands of years and during that time, and became quite effective at remembering things. The problem is that it works too well, keeping items in rehearsal until we attend to them. Writing them down to is both implicit and explicit permission to the rehearsal loop to let them go, to relax its natural circuits so that we can focus on something else. "If an obligation remained recorded only mentally, some part of me consistently kept thinking that it should be attended to, creating a situation that was inherently stressful and unproductive.
- David Allen notes that many of his clients spin their wheels at work, worrying about things they need to do at home, and when they are at home, they're worried about work. The problem is that you were never really in either place. As humble and low tech as it may seem, the 3 x 5 card system is powerful. That is because it builds on the neuroscience of attention, memory and categorization.

Part two.

Chapter 3: organizing our homes.

- B.F.Skinner, the influential Harvard psychologist and father of behaviorism, as well as a social critic through his writings, including Walden two, elaborated on the affordance. if you shear on the weather report in the evening that it's supposed to rain tomorrow, he said, put an umbrella near the front door so you won't forget to take it. If you have letters to mail, put them near your car keys or your house keys that so when you leave the house, they are right there. The principle underlining all of these is offloading the information from your brain and into the environment, use the environment itself to remind you of what needs to be done.
- Decades of research have shown that human learning is influenced by context and by the location where the learning takes place. Students to study for an exam in the room they later took it in did better than students who studied somewhere else.
- One way to exploit the hippocampus's natural style of memory storage is to create different workspaces for different kinds of work we do. But we use the same computer screen for balancing a checkbook's, responding to emails, making online purchases and watching videos.
- The neuroscientist and writer Olivia Sacks goes one further: if you're working on two completely separate projects, delegate one desk or table or section of the house for each. Just stepping into a different space hits the reset button on your brain and allows you for more productive and creative thinking.
- Short of owning two or three separate computers, technology now allows for portable pocket devices that can hold your entire hard disk – you can plug-in a leisure pocket drive, I work pocket drive or personal finance pocket drive. Or instead, different user modes on some computers change the pattern of the desktop, the files on it and the overall appearances to facilitate making these kinds of place-based functions available.

- But there's a fly in the ointment. Although we think are doing several things at once, multitasking, this has been shown to be a powerful diabolical illusion. Earl Miller, a neuroscientist at MIT and one of the world's experts on divided attention, says that our brains are "not wired to multitask well… When people think they're multitasking, they are actually just switching from one task to another very rapidly. And every time they do, there is a cognitive cost in doing so.
- Just having the opportunity to multitask is a derailment to cognitive performance. Glenn Wilson, calls it info mania. His research found that being in a situation where you are trying to concentrate on the task, and an email is sitting unread in your inbox, can reduce your effective IQ by 10 points.
- Russ Poldrick and neuroscientist at Stanford, found that learning information while multitasking causes of the new information to go to the wrong part of the brain.
- Make no mistake: email, Facebook, and Twitter checking constitute a neural addiction.
- The secret is to put systems in place to trick ourselves – to trick our brains – into staying on task while we need to do them. For one, set aside certain times of the day when you'll do email. Experts recommend that you email only to a three times a day, and concentrated clumps rather than as they come. Many people have the email programs set to pull through arriving emails automatically or check every five minutes. Think about that: if you're checking email every five minutes, you're checking it 200 times during the waking day. That has to interfere with advancing your primary objectives.

Chapter 4: organizing our social world.

- This cognitive illusion is so powerful it has a name: the fundamental attribution error. An additional part of the fundamental attribution error is that we failed to appreciate what the roles people are forced to play in certain situations constraint their behavior.
- Another cognitive illusion that concern social judgments is that we tend to have a very difficult time ignoring information that has been shown the later to be false.
- Dozens of experiments have shown that the original knowledge – now known to be false – exerts a lingering influence on your judgments; it is impossible to hit the reset button. Lawyers know this well, and often plant the seeds of a false idea in the minds of jurors and judges. After opposing counsel objects, the judge's admonition, "the jury will disregard that last exchange," comes too late to affect impressions formations and judgments.
- Unknown to us, the dozens of other people are also looking around and having a similar internal dialogue, and reaching the same conclusions that it is against the social norm to get involved in this particular conflict. These are not just textbook problems. In 2011, 61-year-old Walter Vance, a man with a heart condition died after collapsing in a target store in West Virginia while hundreds of shoppers walked by and even over him. In 2013, shoppers at a quick stop convenience store in Michigan, stepped over a man who had been shot and laying dying in the doorway. The cashier failed to check if the victim was alive, continuing to serve customers instead. This tendency not to get involved is driven by three powerful, interrelated psychological principles. One is the strong desire to conform to others behavior in the hopes that it will allow us to gain acceptance within our social group, to be seen as cooperative and agreeable. The second is social comparison – we tend to examine a behavior in terms of others. And third the force

pushing us towards inaction is diffusion of responsibility. This is based on very natural and ingrained feelings about equality and wanting to punish freeloaders: "why should I stick my neck out if all these other people aren't – they could do something about it just as well as I could." The researchers conducted a classic experiment designed to represent a real-life medical emergency. Participants were nearly 3 times as likely to seek rapid help for victim having a seizure when they fought they were the only witnesses than when they fought for other people were also there. Diffusion of responsibility extends to diffusion of blame for an action, and the very real possibility that someone else, unknown to us, has already initiated a helping action, for example calling the police.

- "When only one bystander is present in an emergency, if help is to come, it must come from him. Although he may choose to ignore it, any pressure to intervene focuses uniquely on him. When there are several observers present, the pressures to intervene do not focus on any of the one observers, instead the responsibility for intervention is shared among all the onlookers and is not unique to anyone. As a result, no one helps."

Chapter 5: organizing our time.

- The humor is not so much in what the judge is saying put in our imagination of what must have gone on at the courtroom moments before to elect such a warning! (The witnesses talking with a puppet, while the judge says "the witness will answer in his normal voice") because we are co-participants in figuring out the jokes, cartoons like these are more memorable and pleasurable than one in which every detail is handed to us.
  - This follows a well-established principle of cognitive psychology called levels of processing: items that are processed at a deeper level, with more action involvement by us, tend to become more strongly encoded in memory. This is why passive learning through textbooks and lectures is not nearly as effective a way to learn new material as is figuring it out for yourself, a method called peer instruction that is being introduced into classrooms with great success.
- In general, activities with a long time to completion – and hence a long time to reward – I once more likely to be started late, and those with an immediate reward are less likely to be procrastinated.
- Piers Steel is an organizational psychologist, one of the world's foremost authorities on procrastination and the professor at the University of Calgary. Steele says that to underlining factors lead us to procrastinate:
  - Humans have a low tolerance for frustration. Moment by moment, when choosing what tasks to undertake or activities to pursue, we tend to choose not the most rewarding action but the easiest. This means that unpleasant or difficult things get put off.
- Procrastination = time to complete task *distractibility *delay / self-confidence* task value.
- Certain behaviors may look like procrastination but arise due to a different factor. Some individuals suffer from initiation defects, and inability to get started. This problem is distinct from planning difficulties, and which individuals failed to begin tasks sufficiently early to complete them because they have unrealistic or knife ideas about how long it will take to complete each sub goal. Others fail to accomplish tasks on time because they don't have the required objects or materials when they finally sit down to work. Both of these latter difficulties arise from a lack of planning, not from procrastination per se. On the other hand, some individuals may be attempting

a challenging task with which they have no previous experience, they may simply not know where or how to begin. In these cases, having supervisors or teachers who can help them break up the Palm into component parts is very helpful and often essential. Adopting a systematic, comprehensive approach to assignments is effective in reducing this form of procrastination. Finally, some individuals suffer from a chronic inability to finish projects they've started.

- Also important is to disconnect one sense of self-worth from the outcome of a task. Self-confidence entails accepting that you might fail early on and that is okay.
- One thing that characterizes flow is lack of distractibility – the same all distractions are there, but we are not tempted to attend them. The second characteristic of flow is that we monitor our performance about the kinds of self-defeating negative judgments that often accompany creative work. Outside of flow, and nagging voice inside our heads often says, "That's not good enough." And flow, a reassurance voice says – – I can fix this.
- Every day on the road, this tour staff created a virtual room out of interlocking aluminum poles and curtains, a private space inside the concert venue that is exactly the same from city to city so there's a great deal of comfort and continuity in the midst of all the change. This promotes a calm and distraction free state of mind. There is a fundamental principle of neuroscience behind us: as noted earlier, the brain is a giant change detector. Most of us are easily distracted by the newness the prefrontal cortex's novelty bias. We can help ourselves by molding our environments and our schedules to facilitate and promote creative inspiration. Because his senses are being bombarded daily by new sites, colors and spatial arrangements – at least during his four hour personal time – Staying can let his brain and his mind relax more easily and achieve a flow state.

Chapter 6: organizing information for the hardest decisions.

- I wrote about Steve Wynn, the CEO of Wynn resorts, in chapter 3. About decision-making, he says, "in any sufficiently large organization, with an effective management system in place, there is going to be a pyramid shaped with decision makers at every level. Feeling time I am brought in is when the only known solutions have a downside, like someone losing their job, or the company losing large sums of money. And usually the decision is already framed for me as to negatives. I'm the only one who has to choose which of those two negatives we can live with."

Chapter 7: organizing the business world.

- We see this in organizations of military authority. The general or commanding officer defines a goal. The colonel assigns tasks to each battalion in his command; the major to each company in his battalion, the captain to each platoon in his company. Each officer narrows the scope and increases the specificity of the instructions he passes on. Still, the modern Army gives a fair degree of situational control and discretion to the soldiers on the ground. Perhaps surprisingly, the U.S. Army has been among the organizations most adaptable to change, and has thought deeply about how to apply findings of psychological science to organizational behavior. Its current policy strives to empower people throughout the chain of command, "allowing subordinate and adjacent units to use their common understanding of the operational environment and the Cmdr.'s intent, in conjunction with their own intuition, to synchronize actions with those of other units without direct control from higher headquarters.