



Making a Habit of Good Data Management:



Trigger a cultural shift through small,
deliberate behavioral changes

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Over the last few decades, data management has evolved from a practical problem – i.e., ***How do we keep up with the constant leaps and bounds in processing power?*** – into a practical problem wrapped up in philosophical conundrum – i.e., ***How do we grapple with a fundamentally changed reality in how society and business orders and deciphers itself without the vast majority of employees/individuals becoming completely ambivalent and untethered?***

Which is to say, right now data exists almost in a mystical realm: On a fundamental level it is invisible, intangible. Sure, you can tangibly *manifest* data in a host of ways, but note how the same dataset looks very different incarnated in an Excel sheet or pie chart or as a series of ones-and-zeroes floating on a green screen. Data is like beams of light – we cannot see it, only reflections of it. And suddenly our tech future doesn't look all that different from Plato's Cave, in which people mistake shadows cast on the walls for reality rather than what does the actual "casting."

Outside the IT department and analytics functions, chances are many – if not most – of your employees are living in that allegorical cave when it comes to data management.

So, the challenge before leadership is less a simple matter of setting a series of benchmarks to be met. It is instead to demystify data and make it tangible. Employees need to be led far enough out of the cave that they can see data as something that exists in the real physical world, not merely the dominion of directly tasked "high priests/priestesses."

In this way it can become something tangible and accessible enough that they can see their stake in it, recognize their ability to engage it and feel comfortable taking some degree of day-to-day ownership.

The alternative is to resign oneself to fighting recurring data fires rather than diving into the essential work of nurturing and optimizing the data itself and its surrounding ecosystem.

We'll lead with the bad news: People may be your greatest asset, but they're also your greatest liability in safeguarding your second-greatest asset: your data. Your people have the highest likelihood of impacting the quality and soundness of your data – for better or for worse.

Now the good news: While people appear wildly unpredictable on an individual basis, human psychology is a fairly predictable phenomenon. Furthermore, we're able to influence others with a bit of deliberate action and a well-placed nudge here and there.



So, if it's all about the people – what is a Chief Data Officer (CDO) to do?

Enter the 2018 international runaway bestseller *Atomic Habits* by James Clear.

Though not about data management specifically (as the phrase “international runaway bestseller” may suggest!) the insights on positive habit formation found in this remarkable tome can be applied to establishing and strengthening a data management culture. It offers, in its own way, a roadmap via which CDOs can place humanity first, but also acknowledge we are all wrapped up in this data reality now. How we navigate it will ultimately differentiate those who harness data from the others shackled by it.

The pessimists see data management in an outdated context: a tsunami to survive, not a powerful stream to channel.

If we leveled up after the agricultural, industrial and scientific-technical revolutions, however, humanity has got this. We just need to get away from crisis management and shift to true data management.

To this end, below we will explore Clear's Four Laws of Behavior Change in a data management context.

The Four Laws



1. MAKE IT OBVIOUS

If a habit is mindless you can't expect to improve it.

– James Clear, *Atomic Habits*

In the recent horror movie *Candyman*, if you say the titular ghost's name five times, he becomes manifest in the real world – typically with not-so-great results for the caller.

Data management may be akin to a scary movie to some, but what if by speaking the typically unspoken it could be made visible and obvious in a much more positive way?

This is the concept behind “Pointing-and-Calling,” a method developed by the Japanese rail system, which, as described by *Atlas Obscura*, “works on the principle of associating one’s task with physical movements and vocalizations to prevent errors by ‘raising the consciousness levels of workers’ – according to the National Institute of Occupational Safety and Health, Japan.” These rail employees don’t simply glance at a gauge or safety check; they point and say aloud the details. In this way they make the intangible (a thought) tangible (say, the current speed of a train) and avoid upwards of 85% of the errors that can happen when one’s mind scans over rote labor.

Clear cites Pointing-and-Calling in *Atomic Habits* as a part of his suite of suggestions around his First Law of Behavior Change, Make It Obvious, as well as the following quote from seminal Swiss psychiatrist Carl Jung: “Until you make the unconscious conscious, it will direct your life and you will call it fate.”

“The process of behavior change always starts with awareness,” Clear writes. “You need to be aware of your habits before you can change them.”

Bringing Data Out of the Shadows

So how do we bring awareness to data?

Transparency.

The promotion of transparency must be an integral part of your data management process.

Do not allow the processes and systems that deliver final or near-final data products to your employees to be unspoken or unconscious. Call out each step for every relevant employee throughout your organization. Connect them, explicitly, to data that they might currently not encounter but that ultimately provides the building blocks for what they and the company do. Do not underestimate the ways in which primary sources – scratch notes, data dictionaries, data quality reports – can help demystify your processes at the “atomic” particle level.

Perhaps, in practice, this means every report has automated data quality checks embedded into it, creating a cultural norm that the user of the data verifies the sources have been checked and that the values and quantity of data elements were within expected historic ranges, say, or that the categorical data was all verified to be within an expected set.

Education is key to helping employees recognize the data surrounding everything they do. Frontline associates must recognize not only how they're using data, but also producing it. Accuracy matters at the point of creation, obviously. What if someone doesn't realize they're actually creating data that others will rely upon later? Lineage matters at the point of usage – again, obvious. But what if someone upstream doesn't realize others are building upon their calculation and they redesign their calculation methodology or move to a different data source?

When you know your manager will ask you about the source of your underlying data or that he or she is tracking metrics on the accuracy of your inputs and posting results for the department to see, you're



more likely to pay attention to your actions. Your manager is making it *transparent* that data quality is important. Motivations will more naturally align.

This is why key data roles must be highly visible and treated with a level of esteem that signals their importance. That respect has to be set from the jump if you want the authority from your published data governance policy and data standards to lead to meaningful influence in projects and infrastructure.

2. MAKE IT ATTRACTIVE

Behavior that is incongruent with the self will not last.

– James Clear, *Atomic Habits*

We are not, historically speaking, all that far removed from a time when some executives would have their administrative assistant print out their emails, draft a response by hand, then return it to said assistant to type it up ... as an email in response.

Why?

We could sketch out many reasons from delegation overkill to the frequently long tailwind of tech adoption. But at the deepest core it is because these executives did not see themselves as *a person who writes emails*.

Can you imagine anyone defining themselves similarly today?

This anecdote tells us two things: First, the way people define themselves has a direct effect on behavior – for better and for worse. And those definitions are – again, for better and for worse – ultimately fluid.



Thinking Beyond Outcome

In *Atomic Habits*, Clear makes a distinction between outcome and identity-based habits. It is the difference between “focusing on *what* [we] want to achieve” and “focusing on *who* we wish to become.”

“Your behaviors are usually a reflection of your identity,” Clear writes. “What you do is an indication of the type of person you believe that you are – either consciously or unconsciously ... [W]hen your behavior and your identity are fully aligned, you are no longer pursuing behavior change. You are simply acting like the type of person you already believe yourself to be.” (This advice is, incidentally, not limited to high-level behavioral psychology: B-movie champion and *The Last Drive-In* television host Joe Bob Briggs famously tells fans who ask him how to get into filmmaking to begin by dropping the adjective “aspiring” from their vocabulary: i.e., You are a director, not an aspiring director.)

An employee who sees data management as an outcome-based goal is likely to view the requirements and habits associated with it as an imposition: *I, a not-tech person, am being asked to add these tech tasks to my workload.*

An employee, on the other hand, who can see data management as a holistic part of what they do may not find engaging data to be a cause for joy ... but won't see it as a quasi-punishment, either. You do not have to turn data management into a sexy, thrilling avenue of self-fulfillment. That might actually be an impossible task for the vast majority of the population. But there are plenty of aspects of our lives and jobs we do not find sexy and thrilling ... yet still take pride in doing well. And that's because we see them as a "reflection of [our] identity." Put simply, employees need to see data management not as an external force that is happening to them but an internal part of their evolving professional identity. Tying it to modern, relevant and – dare I say – youthful identities may further serve to make it attractive to many.

Think that's an impossible shift? Hardly. People love change. If they didn't, no one would ever go on vacation, eat at a new restaurant, sell a house or buy a new outfit.

Now do they like being *forced* to change? That is, unsurprisingly, a different story. One that begins with resistance, meanders in intransigence and often ends up in a less desirable place than the one from which you began. It's incredibly difficult to force someone to identify themselves differently by hitting them over the head with it.

Positive Change Requires Buy-In

If you are attempting to change the data management game, build the new regime together.

Encourage collaboration and communication. People crave being a part of something big, important, unique and powerful. It's vital that everyone feels like they are a part of the data ecosystem if you wish to unleash the full power of the organization toward making it great. Invite those currently on the outside into the conversation. Make the details of data management part of the everyday vocabulary. Show every employee the path to being part of the future. Part of the change management process is helping everyone identify with both the problem and the potential for greatness. Once embedded into one's self-identity, people will fight tooth and nail to reinforce this reality and prove it to be true.



Perhaps institute a metadata rating system in which users can vote up or down how useful they find the metadata entered into a governance system. Reward those who meticulously enter what is judged to be the best information by other users. The converse of this is making less desirable behaviors harder – introducing hurdles, essentially. This might include programming the system not to allow someone to upload or save data until it has been labeled.

Further, most data consumers would welcome a single source of truth. One of the bigger pain points is trying to join datasets from different servers, data marts, data warehouses and sources. Data and metric definitions often vary and it's a never-ending challenge to get clarity on how different departments are defining, for example, active accounts or days past due.

As part of master data management, data owners and stewards play a critical role in moving the organization toward the single source of truth, which can become a sturdier foundation to, again, build upon. Beyond the designated data professionals though, engage all of your employees in the concept of driving toward common data definitions and data sources. It's foundational, and the more buy-in and participation you can achieve, the better.



3. MAKE IT EASY

Sometimes motion is useful, but it will never produce an outcome by itself. It doesn't matter how many times you go talk to the personal trainer, that motion will never get you in shape. Only the action of working out will get the results you're looking to achieve. – James Clear, Atomic Habits

Is preparation a form of procrastination? Clear certainly thinks so. “Habit formation,” he writes, “is the process by which a behavior becomes progressively more automatic through repetition.”

This is why a musician can improvise, why a fighter can pull off a left hook after having their own bell rung and why your employees who might today think of themselves as anything but “data people” will be able to interact with said data like pros tomorrow.

How?

By making processes “progressively more automatic.”

First, a subtle-yet-important clarification. Yes, you want to make it easier to do good data management and harder to do its opposite. And, yes, “easy” has always been king. But “easy” does not mean you are catering to laziness. We, as human beings, are evolutionarily hardwired to preserve energy when possible. That’s why we’re the descendants of somewhat cautious prehistoric humanoids who hung back a bit and not the ones who decided to go full bore competing with large game for small game down at the watering hole. “You are walking around with the same hardware as your Paleolithic ancestors,” Clear writes. Indeed. But the very specific set of those ancestors – that’s Natural Selection 101.



Thus, it's important to approach Clear's concept of "make it easy" with the mindset that we're not whipping employees into shape but instead more effectively channeling their natural instincts. This channeling must entail actual activity, whereby new neural pathways are formed and reinforced through repetitive action. Muscle memory can only be achieved by exercising the muscle – not solely by thinking about it.

Smart Automation Is About Empowerment Not Avoidance

Automation isn't about taking data out of employees' hands. That would put us back to square one – invisibility. No, user-defined quality monitoring and advanced analytical techniques are about creating greater, clearer visibility into data. These efforts raise the quality and worth of subsequent data and downstream usage, leveraging innovation in tech departments – data checking SQL scripts, for example – across previously siloed areas. They also nurture a healthier, more thriving overall data ecosystem.

That's the conceptual, high-level view, complete with a couple relevant buzzwords tossed in. (You're welcome.) Brought down to a more practical level, however, such streamlining can afford employees more time and energy to make better use of the data. They *get to* play a more adept role in data management themselves, whether we're talking about opening up a more direct interface to institutional knowledge and data governance rules, a higher degree of confidence and autonomy when dealing with data, more effective troubleshooting and error-catching, greatly expanded realistic stakeholding, lower costs, avoidance of minor and catastrophic data failures and so much more.

If it is really adapt or die out there (spoiler alert: it is), automation can get employees and the company at large through the day-to-day as they strive toward adoption and – not to put too fine a point on it – acceptance.

Obviously, building an automated data quality management system will take trial and error. It may even siphon resources away from other priorities for at least some period of time.

This of course depends on how complicated and vast your current data ecosystem is, as well as its degree of primordial-ness. In the end however, the payoffs will likely scale well. You'll have a process more tailored to your needs and your employees will be engaging with and making decisions based on your actual data rather than swiping at shadows on the cave wall.

The Ritual of Focus

Two further Clear insights seem worth sharing here:

1. "The more you ritualize the beginning of a process, the more likely it becomes that you can slip into the state of deep focus that is required to do great things."
2. "Standardize before you optimize. You can't improve a habit that doesn't exist."



Focus on these “data means” and you’ll have a very good chance of getting to a “management end” even greater and more effective than you set out to achieve in the first place.

4. MAKE IT SATISFYING

We are more likely to repeat a behavior when the experience is satisfying. This is entirely logical. Feelings of pleasure – even minor ones like washing your hands with soap that smells nice and lathers well – are signals that tell the brain: “This feels good. Do this again, next time.” Pleasure teaches your brain that a behavior is worth remembering and repeating. – James Clear, Atomic Habits

Time to shoot straight: You’ll never get to a place in your management practice where data smells good and lathers well. But that doesn’t mean it’s impossible to make data engagement satisfying for your employees.

On a foundational level, the challenge here ties into the end of the last section: Gratification will be delayed, not immediate. “The brain’s tendency to prioritize the present moment means you can’t rely on good intentions,” Clear writes. As you tread a path to long-term data management goals – and, also, the ability to create real value for customers and, by extension, shareholders – it is essential to find ways to weave pleasure into the waystations of the data journey.

So how do you make good data management feel good?

The simplest element of this is to be sure to call out strong data management behaviors. Recognize and reward those who are doing it right. Drive the cultural behavior for end users to recognize and encourage the upstream effort, starting at the top.



Can you imagine how a data steward or producer might react if the CXO were to reach out and personally express appreciation for the work they did and how it impacted their decision-making? Peer recognition – and its less beloved cousin, peer pressure – are real and powerful motivators. Carrots, doled out wisely, democratize innovation.

Other fun and effective activities might include setting up periodic hackathons or data dojos. In partnering data experts with laypersons, the organization increases its data literacy while letting that layperson be a part of creating new solutions or products with data they are greatly, though perhaps unknowingly, familiar with. It makes data extremely real in a very short time frame. Furthermore, it allows non-data people with great ideas to shine in new and interesting ways. That feels pretty darn good.

Yes, Bankers, Data Can Be Sexy

On a less obvious level, the process of optimizing data and increasing its accessibility establishes its own self-sustaining gratification loop. When analysts and data scientists get to play with reliable data, it's ... stimulating. No data scientist logs on in the morning excited to cleanse data. They're excited by what they can do with the data – more so when the data is already certifiably useable. Again, this is an ancillary benefit of automation/machine learning/AI and the sort of demystification that widens the circle of stakeholders.

In sum, reward behavior that improves the data ecosystem and there is a boomerang effect of that improvement coming back home as fuel for further satisfaction. This is, in part, why it is so essential that part of the reward needs to be felt by those who are creating and/or managing the data on the front end for the end users to play with.

Eliminate the limiting belief that data lives solely within the technical architecture: Data is just bits and bytes of information, but in this brave new world businesses will live and die by it. Internalize this truth and act on it:



When it comes to accountability, data should be considered a business asset, not merely a tech asset. Which means, yes, your CDO has a lot riding on benchmarks and outcomes – but so does your CRO, CFO, COO, CEO and every GM in the house. Every employee at every touchpoint should understand there are good data management rewards, as well as penalties, awaiting them.



A Few Final Thoughts

The paradoxically beautiful thing about data management is that it has been so difficult so far, that any marginal lessening of that difficulty will be a marked improvement.

Today, we find ourselves in a post-pandemic moment, after every level of the culture in virtually every company was forced to adapt on the fly to extreme circumstances. This showed the degree of change that can be instituted at lightning speed. (Think of how difficult your first Zoom meeting was compared the one you probably had ... five minutes ago.) When there's a collective will, people figure it out – quickly.

The need for change and the possibility of change are before all of us in neon signs – and this is not limited to data management. The question is how we get from here to there. And one key answer is *positive habit formation*. A second key answer is *proactive change management*.

Do this effectively and virtually nothing is outside our capabilities. Do it poorly and it's going to be a rough ride to the vanguard of this revolution-in-progress.

Success begets success – so take whatever beachhead you can. “Once you have your first few minor wins on the board, demand more,” our recent paper [*Managing Change: Your Data Depends on It*](#) recommends. Take early wins from this habit-forming exercise to build momentum for an organizational change management exercise (guidance for which we offer up in the white paper).

Change Your Lens



Though it may feel counterintuitive in modern corporate culture, removing the focus from specific goals – which are not and probably never again will be static – to “habitual” systems put in place to evolve our behavior into something more lithe and adaptable is perhaps the only way to affect lasting, positive change. It is the equivalent of shifting our perspective from barely treading water amid the constant battering of chopping waves to learning the breast stroke and cutting through those same waves.

Above all, however, maintain respect and reverence for those whose habits we hope to reshape. Never forget culture departments are not, in fact, where culture truly originates. It comes from within. To lose sight of that – to eschew the importance of *peers* and *leadership* – is to turn away from progress and spend one’s precious days fielding data issue emails and pounding the square peg into a round hole.

Be determined but modest. As Clear writes in his conclusion: “The holy grail of habit change is not a single one percent improvement, but a thousand of them. It’s a bunch of atomic habits stacking up, each one a fundamental unit of the overall system ... Each improvement is like adding a grain of sand to the positive side of the scale, slowly tilting things in your favor. Eventually, if you stick with it, you hit a tipping point.” Shifting your organization to be one fully invested in its data takes time and determination. It can – and *should* – be done, however ... one organizational atomic habit at a time.

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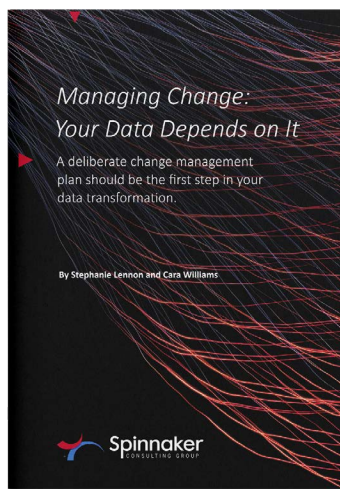
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Stephanie is a pragmatic problem solver who has spent the last 25 years working across diverse industries to bring transformational programs to life. Her expertise includes helping evolve business strategies, optimizing customer service delivery, driving operational efficiencies and managing complex organizational change.

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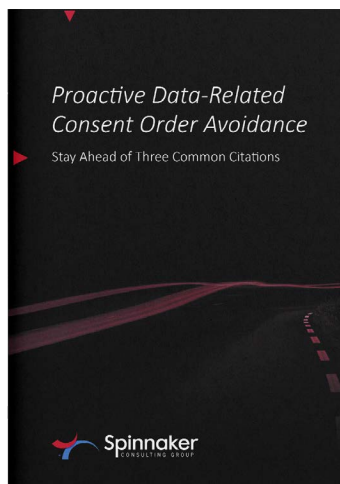
This piece is part of a broader series from Spinnaker aimed at helping Chief Data Officers and their teams steer the cultural shift around creating well-managed data ecosystems.

Related materials include:



Managing Change: Your Data Depends on It: a white paper focused on the change management exercise facing many CDOs with insight on how to stage that transformation to set your organization up for success.

<https://www.spinnakerconsultinggroup.com/managing-change-whitepaper>



Proactive Data-Related Consent Order Avoidance: a white paper designed to help CDOs reverse-engineer their data management ecosystem to meet regulatory expectations around robust governance, monitoring and measurement.

https://www.spinnakerconsultinggroup.com/consent_order_avoidance_whitepaper