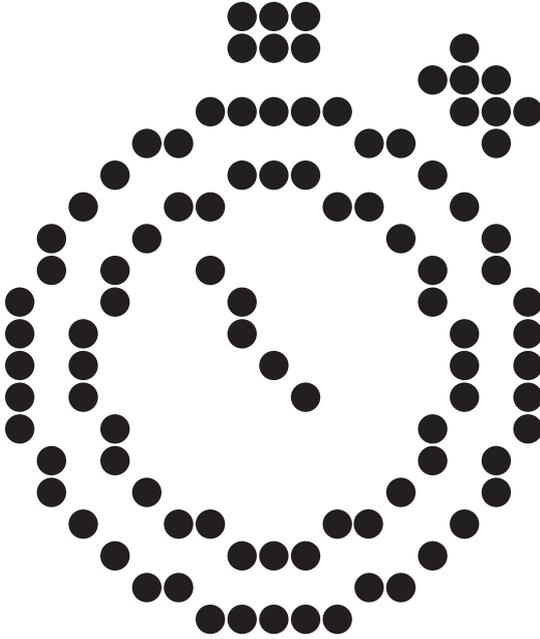


John Maeda, "Time"

From his book *The Laws of Simplicity*, 2006.

p. 22-31



Law 3

TIME

Savings in time feel like simplicity.

The average person spends at least an hour a day waiting in line. Add to this the uncountable seconds, minutes, weeks spent waiting for something that might have no line at all.

Some of that waiting is subtle. We wait for water to come out of the faucet when we turn the knob. We wait for water on the stove to boil, and start to feel impatient. We wait for the seasons to change. Some of the waiting we do is less subtle, and can often be tense or annoying: waiting for a Web page to load, waiting in bumper-to-bumper traffic, or waiting for the results of a dreaded medical test.

No one likes to suffer the frustration of waiting. Thus all of us, consumers and companies alike, often try to find ways to beat the ticking hand of time. We go out of our way to find the quickest option or any other means to reduce our frustration. When any interaction with products or service providers happens quickly, we attribute this efficiency to the perceived simplicity of experience.

Achieving notable efficiencies in speed are exemplified by overnight delivery services like FedEx and even the ordering

process for a McDonald's hamburger. When forced to wait, life seems unnecessarily complex. *Savings in time feel like simplicity.* And we are thankfully loyal when it happens, which is rare.

Then there's the implicit benefit: reducing the time spent waiting translates into time we can spend on something else. In the end it's about choosing how we spend the time we're given in life. Shaving ten minutes off of your commute home translates to ten more minutes with your loved ones. Thus a reduced wait is an invaluable reward not only with respect to business, but to life and your well-being.

Saving time is really about reducing time, and SHE as introduced in the first Law can help us. SHE says that we can realize the perception of reduction through shrinking and hiding, and can also make up for what is lost by embodying what is most important in subtle ways. Let's see if SHE is right again.

SHE: SHRINKING TIME

As a prototypical "busy guy" who's trying to stay sane, I'm personally familiar with the goal of shrinking time. I'm the guy who unties his shoes and removes his laptop from his bag before he reaches the table at airport security, in the hope of passing through with the speed of an Olympic downhill skier. Getting home before the kids are asleep is another daily challenge—one to which I apply sophisticated routing algorithms that get me from MIT to my house with the efficiency of a New York City messenger. In the former case I risk embarrassment while self-exposed in the security line, and in the latter case I up my premiums by swerving through the infamous battlefield

of Boston traffic. My personal risks when saving time, however, are small compared to the larger scale at which businesses risk.

Reducing a five-minute task to one minute is the *raison d'être* of operations management, the field that has brought us a world that never sleeps and is always on time. Superior operation management techniques played an important role in the rise of Toyota over GM in 2006. Promises of radio-frequency ID (RFID) tag technology that can uniquely identify every single product stocked on shelves will make taking inventory happen instantly. Businesses take great risks to optimize their processes out of the need for survival. At the individual level, we're also in the business of survival but we also have certain freedoms that allow us to play a different tune.

Of the infinite ways to whittle away at time, a superior solution is to remove all constraints, as I learned upon the introduction of Apple's iPod Shuffle. The Shuffle differs from other iPod products in that it has no display besides a single LED, and thus its user interface is vastly reduced at the gain of a lower price point and better resistance to wear.

I first heard about the Shuffle in a radio commercial that went something like, "Plug it in and get a completely random mix of your music library. That's right, completely random!" I couldn't contain my enthusiasm, and I began wondering: after Apple invented the usage of white in product design, had it now invented randomness?

Giving up the option of choice, and letting a machine choose for you, is a radical approach to shrinking the time we might spend otherwise fumbling with the iPod's scroll-wheel. The Shuffle's approach is to generate random choices, but we

can foresee a future in which the iPod knows your preferences, habits, and even your moods and will play music accordingly. Eventually Google's "I'm feeling lucky" search option won't have to be lucky at all and will find the exact thing you're searching for.

A version of this future is already with us today. Go to Amazon.com and it recommends a handful of books you might like, based on the preferences of people it deems similar to you. Choosing to browse Amazon.com's entire inventory would be a time intensive task, and thus by caring less we can find savings in time. Letting someone else make the unimportant choices for us can be a sound coping strategy.

At a macroscopic level, governments and corporations go to great lengths to shrink time and cut corners as a means to reduce cost; at a personal level we make similar sacrifices that realize similar rewards in the name of efficiency. At the end of the day, there is an end of the day. Thus choosing when to care less versus when to care more lies at the heart of living an efficient but fulfilling daily life.

SHE: HIDING AND EMBODYING TIME

Shrinking the time of a process can sometimes only go so far, and so an alternative means to "saving" time is to hide its passage by simply removing time displays from the environment. I stopped wearing a wristwatch many years ago as I found, like many others, that as a result I never feel that I am running out of time. Although even without a wristwatch, my cell phone volunteers the current time. I wish I could turn the display off.

Few examples exceed the slippery trick that casino parlors in Las Vegas play on their guests. Walking into a professional casino for the first time can be a disorienting experience. Typically there are no clocks or even windows to reveal the general time of day. This simple environmental setup reinforces your impression that you might be logically awake enough to gamble. I would imagine that if it were legal, casinos would want to reprogram all cell phones in their vicinity to display time in a garbled fashion in order to keep you there. Of course, hiding time does not save time; it simply creates the illusion that time is not of pressing concern.

When we see the frozen hands of a clock with a dead battery, and we sit there and watch it, we tend to have a sinking feeling. Something feels wrong. We like to see time flow, as it is only natural that it seek its natural progression forward. On the other hand, when a clock is completely hidden we tend not to question its flow and instead experience an unsettling sense of uncertainty as to what time it might be. Seeing a clock's second-hand *tick-tick* forward is a reassuring sign that all is well.

In the early days of personal computers, the transfer of data from internal memory to an external storage medium such as a disk drive or remote computer could take anywhere from a few seconds to many hours. You would execute the transfer command and wait until it ended—not knowing how long it might take. A frozen computer is like a frozen clock, and thus ways to psychologically deal with this torturous experience of waiting emerged in the form of “progress bars.” When Apple used to invest in research, they conducted an experiment in which a user was presented with a task that required significant

processing time. They found that when a graphical display of progress, or a “progress bar,” was shown, the user would perceive that the computer completed the task in less time than when no progress bar was shown at all.

Let’s do an experiment, shall we? Below on the left is a progress bar that is displayed as consecutive frames in time. Read them top to bottom, and you see that at the very end, the bar is fully filled. On the right is a progress bar that shows progress forward in increments until it reaches its fully filled state in a step-by-step fashion.



What did you find? I’m convinced. Less time is felt to elapse in the progress bar on the right. On the left, time messily pops out like ketchup from a Heinz bottle; on the right, time is gently spread across a slice of bread like margarine with a butter knife.

Telling people how much time they have left to wait is a humane practice that is becoming more popular. Witness the increasing number of crosswalk signals that have their own progress bar or numerical countdown display to show the time that remains. When waiting on hold for a service representa-

tive, an automated voice tells you how many minutes you may have until you speak to a human. Time can be embodied in the face of a clock, in digital form, or in an abstract graphical display. There are cases when at the minimal level of display a simple LED blinks monotonously as a kind of visual heartbeat to signal to its audience that everything is okay. Knowledge is comfort, and comfort lies at the heart of simplicity.

Time can be embodied through a more deceptive approach—using “styling” to create the illusion of motion and speed. A designer in the 1930s named Raymond Loewy is credited with a styling concept called “streamlining.” You may not know his name, but you probably know the Coca-Cola bottle that he designed many years ago (I refer to the classic single-serve glass bottle, and not the bulbous one-liter plastic container used today). Loewy is known for being influenced by the aesthetics of flight and jet propulsion, and for transferring the “style” (not function) of flight onto regular household objects. For instance, a vacuum cleaner or toaster could be made to look more swift and light by giving it the visual characteristics of an airplane. A car could be made to look faster by attaching fins that had no aerodynamic function. Computers today use many of the swoopy styling cues from the automotive industry to enhance the image of speed. Alienware, now a Dell subsidiary, leads this trend to apply “hotrod” styling to a computer in the form of aggressive air ducts and theatrical lighting.

Styling is a form of deception that, although misleading, can be a desirable attribute from a consumer perspective. We need all the positive reinforcement we can get in order to feel that we are moving forward. Don't we?

TICK TICK TICK

Every year something like this happens: I get stuck on an airport runway for 4 hours in the middle of a snowstorm, then stand in line for 3 more hours to determine my future flight's fate, then the next morning stand for 2 hours in a line to get through security in order to wait another 1 hour on the runway again. The realization that life is about waiting comes later in life. As a child, the idea of waiting is something foreign and simply intolerable. But waiting is what we do in the adult world. We do it all the time.

Sometimes the mundane experience of waiting can reach dramatic heights. Like when you are about to give a presentation to an audience of hundreds and you are copying a critical file over from a thumb drive to the presentation computer and everyone's waiting for you to start, and the progress bar lazily marches along ... and ... then ... it *stops*. And *waits*. It tests your faith in the machine and silently taunts you to press "Cancel." Hundreds of eyes are on you. Do you have the guts to restart the process? Can the wait experienced now be gambled against what might be an even longer wait later? Feeling lucky?

Making critical processes run faster is a fantastic benefit to humankind. However fast doesn't come cheap. The cost of sending a document via the USPS is 39 cents but to send it overnight is \$14.40—making it close to 40 times more expensive to get into the fast lane. A direct flight will save time over one with connections but will cost significantly more. Add in the interminably rising cost of fuel, and expect to continue paying an extra premium for the privilege of acceleration.

Web technologies are an exception to this time/cost trade-off. Google News breaks stories that emerged only “3 minutes ago,” giving you a free front row seat to world events as they happen. *Saturday Night Live’s* boastful “Live from New York” introduction doesn’t seem like such a big deal when live webcasts are possible from anywhere in the world. The speed of the Web sets our expectations to *now*.

When speeding-up a process is not an option, giving extra care to a customer makes the experience of waiting more tolerable. I appreciate the free cookies and other samples in line at the Whole Foods store during the Thanksgiving season as the checkout queue snakes across the entire store. Saving time is thus the tradeoff between the quantitatively fast versus the qualitatively fast:

HOW CAN YOU MAKE THE WAIT SHORTER?		HOW CAN YOU MAKE THE WAIT MORE TOLERABLE?
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Restated in the terminology of SHE, SHRINK the time constraints on one hand and HIDE or EMBODY the dimension of time on the other hand. Saving time or staying in step with the flow of time—whichever costs the least to implement—will usually win the day.

SHE helps us to manipulate our relationship with time in favorable ways. When time is saved—or appears to have been—the complex feels simpler. A shot from the doctor hurts less when it happens quickly, and even less when we know that the shot will save our lives. This latter phenomenon is addressed in the fourth Law of LEARN, so let’s not linger but move along so you do not have to wait.