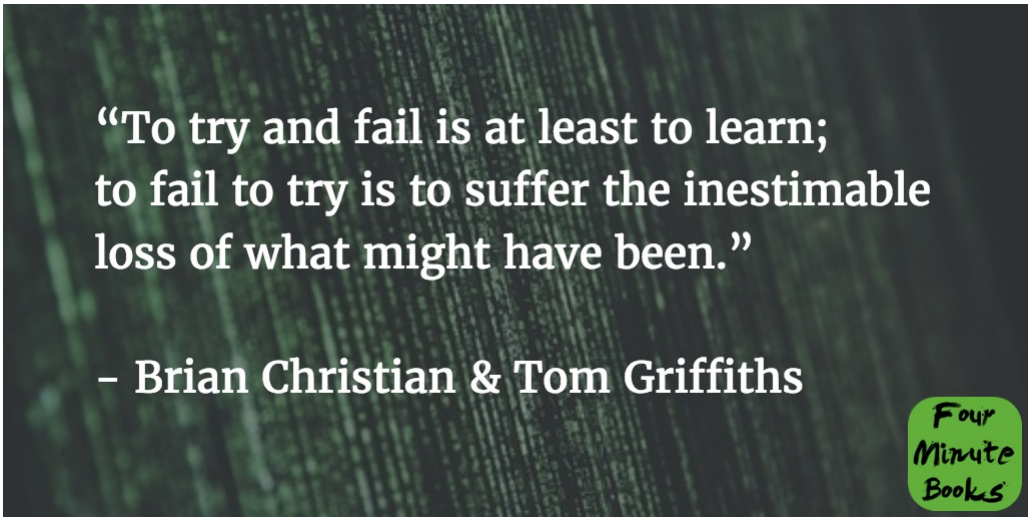
1-Sentence-Summary: *Algorithms To Live By explains how computer algorithms work, why their relevancy isn't limited to the digital world and how you can make better decisions by strategically using the right algorithm at the right time, for example in dating, at home or in the office.*

Read in: 4 minutes

Favorite quote from the author:



Brian Christian and Tom Griffiths have done a terrific job with *Algorithms to Live By*. This book merges computer science with everyday life, which makes it a fun introductory read for those, who don't really know how computers work, yet a cool way to learn how to live better, even if you're very experienced in computer science.

An algorithm is really nothing more than a recipe: a series of steps you can follow to solve a very specific problem, that can be re-run as often as you like and will always provide a solution.

Our brains use them all the time to approximate incomplete information or focus on just the essential facts at hand and thus allow us to make a decision without being paralyzed.

Here are 3 scenarios in particular, where you can deliberately use algorithms to make your life easier:

1. Clean up your home using sorting algorithms.
2. Limit the time you spend on time management with a few simple to-do list patterns.
3. Use game theory and mechanism design to improve how you make decisions.

Ready to make your life easier with some plug-and-play recipes for productivity? Algorithm will be executed in 3…2…1 – go!

Lesson 1: Organize your stuff faster using a variety of sorting algorithms.

Einstein was notoriously known as a walking source of chaos, and he's famously credited with saying:

> "If a cluttered desk is a sign of a cluttered mind, of what, then, is an empty desk a sign?" – Albert Einstein

I keep my desk clean as a whistle, and I always find myself to be the exception, but if you're more like Einstein and prefer a decent amount of organized chaos, then this will be comforting: there's order in chaos too, so if within your various piles of paper you can find everything rather quickly, why stress about organizing?

However, when you're moving houses or can't walk around your bed any more, because everything's cramped in your home, a sorting algorithm might be in order. The next time you clean up, try using one of these three:

1. **Bubble sort**. We coded this one in college. Basically, you only ever compare two items at a time and put them in the right order, going through all pairs of items one by one and swap them if their order is wrong. Once you're through the list, start over until you don't have to swap anything any more. Perfect for sorting books!
2. **Insertion sort**. This is less incremental, making you take out *all* items to be organized and then inserting them in the right order. This is ideal for organizing your wardrobe.
3. **Merge sort**. I hope you only have to use this one when you move. It works by dividing all of your collections into multiple piles, sorting the piles (for example by room), and then re-assembling the sorted piles to get a full solution.

Pretty cool, huh?

Lesson 2: Don't waste time managing your time, just pick a to-do list algorithm and go.

Do you know the frustration when managing your time becomes a waste of time in itself? When you look at the clock and realize you've spent two hours organizing your day, which means now you won't have enough time left to take care of everything you've set out to do?

I've been there. That sucks.

Luckily, you can use algorithms to save time on this! Here are three in particular:

1. **Earliest Due Date**. With this, you sort all of your tasks by deadlines and start with the one that's due next. This way, you'll make sure you won't run into any time issues.
2. **Moore's Algorithm**. If it's too late for Earliest Due Date, because you already *know* you won't make it all in time, skip the task that takes the longest to free a big chunk of time and have a shot at getting everything else done.
3. **Shortest Processing Time**. With lots of small tasks, it makes sense to sort them by how long they're going to take and knock out the shortest ones first.

Beware though, especially that last one is prone to something called **priority inversion**, which is when we focus on urgent, minor tasks, and forget to do what's important.

Especially for hard work, the ultimate algorithm is still to enter deep work mode and focus on one thing until it's done.

Lesson 3: Make better decisions for yourself and for others with game theory and mechanism design.

Game theory is a field of economics that deals with how rational people make decisions, based on other peoples' choices. For example, depending on whether your friend buys a street they land on in a game of Monopoly, or not, you'll make a different move next in order to win.

A classic example of game theory is the prisoner's dilemma, in which two prisoners are offered the deal to be set free if they tell on their partner in crime, will receive a very long sentence if they remain silent and their partner tells on them, or a shorter sentence if both of them stay silent. The best overall solution would be to stay silent, but because each individual has a chance of being free, rational people will always betray the other party and thus both lose.

But in the real world, **people have a natural tendency to cooperate**, even if they can't agree on doing so beforehand, so if you see a prisoner's dilemma happening in your company, try to get the involved parties to talk!

Mechanism design is a bit easier, asking **what would force yourself to make the best decision?** For example, when people working at Evernote weren't using their vacation days, even when being offered $1,000 to do so, the company just made vacations mandatory, forcing them to make the decision that was best for them, because vacations keep people healthy and motivated.

Algorithms To Live By Review

I knew all of the algorithms or at least had seen them before in college. They actually come from a variety of fields: economics, operations research, statistics and of course programming. *Algorithms To Live By* really shows that algorithms aren't just a thing of

computers – they permeate our whole world, and learning to see and use patterns to your advantage is one of the best “life hacks” you can get going for yourself. Highly recommended!

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What else can you learn from the blinks?

- What intuitive algorithms are
- Why 37 is the magic number for dating, buying a car and finding a job
- How to win at slot machines in Vegas
- The system computers use to present you with the right files at the right time
- How to predict the future with statistical algorithms
- What two generals can teach you about data overload
- Where algorithms hit their limits

Who would I recommend the Algorithms To Live By summary to?

The 15 year old, who doesn’t want to clean up her room, but her Mom keeps telling her to do it, the 29 year old manager with a time problem, and anyone who loves playing Monopoly.