

# Limitless

# **What's in it for me? Unlimit your brain to learn and achieve anything.**

When he was a child, the author, Jim Kwik, suffered a traumatic brain injury. It left him with a learning disability, which meant that, at school, he had to work a lot harder than all the other kids. On top of that, he was also frequently bullied. Even a teacher once labeled him “the boy with the broken brain.” For years, the author assumed that because of his injury he had to put a lot of hard work into learning. But in college Kwik realized that there was a different way. He didn't need to work harder – he needed to learn better. The tips he uncovered allowed him to increase his focus, improve his memory, and start to absorb information faster than ever before. Just like the author, you too may be harboring untrue beliefs about yourself. These blinks will show you that just a few changes in your mindset, motivation, and methods can help you become truly limitless. In these blinks, you'll learn

why taxi drivers have bigger brains than others; how Bach can help you study; and why you're no better at reading than a third-grader.

## **Technology makes our lives easier, but it may be hindering our learning abilities.**

Is digital technology good or bad? The question may be simple, but the answer is far from straightforward. On the one hand, smartphones and tablets can seem liberating. After all, they do allow us to “outsource” some of our brain's simpler functions. Sounds great, doesn't it? Well, perhaps not. Some researchers feel that this digital habit is becoming a problem. They believe it hampers our cognitive abilities. Think about how we all constantly switch between tasks – from working to checking notifications to texting. One neuroscientist, Daniel J. Levitin, believes that this process causes the brain to quickly burn up its fuel, leaving us stressed and exhausted. The key message here is: Technology makes our lives easier, but it may be hindering our learning abilities. We have constant access to a wealth of information right at our fingertips. It's no surprise then that studies indicate that the average person consumes three times more information today than in the 1960s! But pummeling ourselves with all this information isn't necessarily a good thing. That's because being able to look up facts whenever you need them causes your memory to atrophy. It withers away, like an under-used muscle. On the other hand, forcing yourself to recall information actually creates and strengthens memories. Overusing technology may also reduce your capacity to think critically. After all, there's no shortage of opinion on the internet. Some would say that it's a good thing: it allows us to see issues from lots of different perspectives. But the truth is that most of us don't actually go looking for varied perspectives. Instead, we identify a few sources we already agree with, and use them to reinforce our beliefs, thus essentially accepting other people's ready-made opinions. This means that our capacity for deduction and problem-solving begins to weaken, and we lose the ability to think critically. So it's more important than ever to keep your brain in tip-top shape. How do you do this? Jim Kwik offers a few suggestions. One simple tip, especially pertinent for the digital age, is to spend 30 minutes each day with all your devices turned off. You can

use this time to relax, be creative, and just let your mind wander. But what if you do spend too much time with your devices? Will it change you – and your brain – forever? Well, maybe not. Our brains are resilient and adaptable, as we'll see in the next blink.

## **Each of us has the power to change our brain.**

How many times have you thought, “I’m too dumb to learn a second language,” “I have a terrible memory,” or “I’m just not good at this subject”? When we spend too much time comparing ourselves with our peers, we often fall into the trap of thinking that we’re somehow not as good as they are. But this can prevent us from reaching our full potential. You may not be pleased with your achievements today – but that certainly doesn’t mean that you won’t shine tomorrow. Your brain is – as scientists put it – highly neuroplastic. It simply means that, throughout your life, it changes. A lot. The key message here is: Each of us has the power to change our brain. Lots of people think that our brains reach their full capacity sometime around adolescence. After that, it is, allegedly, all downhill. Fortunately, there’s lots of evidence to the contrary. Let’s look at London cab drivers. To get a license, they have to do a lot of learning, and they also have to pass an extremely difficult exam. A prospective London cabbie spends three to four years memorizing each of the 25,000 streets in just one 10-kilometer area of London. All this learning has a profound effect on their brains. Researches compared London cabbies with ordinary people, and found that drivers actually had more gray matter in their memory centers. The process of learning thousands of streets seems to force their brains to create new neural pathways. It changes the structure of their brains and even makes them bigger. What does it mean for us? Well, the good news is that we can all do exactly the same thing. But first, we need to purge our minds of what the author calls LIEs. This is an abbreviation that stands for Limited Ideas Entertained. One of the biggest LIEs we’re told is that our IQ is fixed for life. It’s not at all as simple as that. Yes, your IQ test scores do tend to remain stable over time. But IQ doesn’t measure your ability to learn. Nor does it show your actual intelligence level, which can change and grow over time. This LIE – this idea of a fixed IQ – is both limiting and negative. Everyone has the potential to be a genius – we just often choose not to believe it. So perhaps it’s time to start divesting yourself of these LIEs and start thinking positively.

## **Free your mind of negative thoughts and replace them with positive ones.**

Every day, each of us thinks tens of thousands of thoughts. A lot of them are questions. And many are repeating. From among these, we all have so-called dominant questions, which come up more often than others. For instance, the author was once invited to spend some time with the actor Will Smith on a film set in Toronto. The cast and crew were working outside, in the dead of winter, overnight, from 6:00 p.m. to 6:00 a.m. During a break, Smith and the author figured out that one of the actor’s dominant questions was: How do I make this experience more magical? Smith repeatedly acted on his dominant question. Rather than taking time to rest, he used his downtime to bring everyone hot chocolate and to crack jokes, and that created a more positive experience for everyone. The key message here is: Free your mind of negative thoughts and replace

them with positive ones. So, what do you think your current dominant questions are? And are they helpful to you? Unfortunately, for many of us they can be negative or disempowering – things like “How can I get people to like me?” or “How can I become invisible?” Questions like these are not productive. All they do is mask your authentic self. Instead, you can try to ask new questions, ones that empower you. For each of us, they will probably be different. For the author, these questions are: “How do I make this better?” And “How does my mind work so I can work my mind?” These dominant questions are positive. And they can do a very important job: they can shift your mindset to a positive, limitless one. This new mindset can actually be beneficial to your health. For instance, studies show that positive people are 13 percent less likely to experience heart attacks or depression. So, next time you find yourself using phrases like “I can’t,” “I’m not,” or “I don’t,” flip that around. Instead, tell yourself: “I haven’t always been good at this, but that doesn’t mean I can’t be great at it now.” Recall times when you actually did succeed – even if only in part. These are all great ways to start beating your inner self-critic. You might even give it a ridiculous persona, complete with kooky physical features and a silly name. Mock it whenever it tries to bring you down, and get good at telling the difference between that self-critic and the real you. Learn to be positive, and this will open up your mind to the joy of life and all the possibilities it offers.

## **Motivate yourself to change your behavior by defining yourself and your purpose.**

The words “passion” and “purpose” are often used interchangeably. We use them to talk about something that ignites a fire in us, something we love doing more than anything else. But, in fact, passion and purpose are entirely different. Passion is something internal. It lies in your inner core; it is buried beneath other people’s expectations or assumptions about you. Purpose, on the other hand, is aimed at what’s around you. It is something you can share or contribute to the world. For example, you might have a passion for basket-weaving. But, perhaps, your purpose is to teach basket-weaving to others. This may all sound complicated, but if you want to achieve limitless motivation and energy, it’s essential to identify your passion, and then use it to find your purpose. The key message here is: Motivate yourself to change your behavior by defining yourself and your purpose. Let’s look at an example. Imagine a healthy 70-year-old. Every morning, he gets up at 5:00 a.m. to go to the gym. Why? Is he passionate about early mornings or lifting weights? No. He does it because he feels there’s a purpose to it. And that purpose is to keep up with his grandchildren. What does it mean for you? Well, think about how often you find yourself struggling for motivation to complete tasks. Maybe you need to think about why you want to complete those tasks in the first place. If the answer is tied to your purpose, you’ll be more motivated to act. And there’s another trick to becoming motivated. Think about who you are and what defines you. Answers to these questions can be great drivers of behavioral change. The author gives the example of a study conducted at Stanford University. Psychologists divided participants into two groups. They asked one group, “How important is it for you to vote?” The question put to the other group was subtly different: “How important is it for you to be a voter?” Those who were asked about being a voter turned out to be 13 percent more likely to take part in elections. What does this tell us? Well, it seems that if you identify yourself with a goal you want to achieve, or a habit you want to develop,

your motivation goes up. That answer may be encouraging, but it's incomplete. If your motivation is missing, there could be other reasons for that. Some of them will become clearer in the next blinks.

## **Support your brain by getting enough sleep, eating healthy foods, and exercising regularly.**

So you have a strong purpose, and you also have the drive to act. But there's still something that can hold you back. That barrier? It can simply be – a lack of energy caused by eating the wrong type of food, or by not getting enough sleep. Sleep deprivation is tied to a long list of physical and mental issues. This list includes depression, irritability, heart disease, and even Alzheimer's. In short: don't sacrifice sleep! Sleeping, eating, and exercising are all essential if you want your brain to function at its best. The key message here is: Support your brain by getting enough sleep, eating healthy foods, and exercising regularly. At first sight, sleep and exercise don't seem to have much in common. But they are, in fact, closely connected. Regular exercise can actually help you sleep better. After one 16-week study on how aerobic exercise affects sleep, for instance, participants who hit the gym found they were sleeping more each night. One and a quarter hours more, to be precise. The fact that exercise is important is, perhaps, old news. So why don't we act on it? Well, we all have endless excuses. Pumping weights is boring, we don't have the time, gym memberships are expensive. The truth is, though, that the benefits of exercise far outweigh all of these concerns. And these benefits are not just limited to building muscle or losing weight: they affect your brain, too. Regular aerobic exercise can boost the size of your hippocampus – your brain's memory and learning hub. So, your brain needs enough sleep and good exercise. What else? Well, there's another key requirement: high-quality food. According to neuroscientist and nutritionist Dr. Lisa Mosconi, there are 45 distinct sources of brain nutrients. The top ten are: avocados, blueberries, broccoli, dark chocolate, eggs, leafy greens, salmon, turmeric, walnuts, and water. Sleep, exercise and good food. How do you make sure that getting enough of them becomes a habit? You need to work on it. Building a habit can take anywhere from 18 to 254 days – but, however long it takes, you can do it! Start with making just one small change at a time, and slowly but surely, the new habit will become an integral part of your life.

## **Increase your productivity by getting into a state of flow, and using the power of small steps.**

Remember the last time you were so focused on an activity that you lost all track of time? You were probably in a state of what psychologists call flow. When we're in this state, we feel like the task we're completing is almost effortless. We feel that we're being challenged – but the challenge is not overwhelming. And we tend to get a sense of comfort and reward from what we're doing. Perhaps the best part of flow is that it dramatically increases our productivity, sometimes by as much as 500 percent! The key message here is: Increase your productivity by getting into a state of flow, and using the



power of small steps. How do you get into flow? It all starts by eliminating distractions. You can't possibly kickstart flow if you're checking social media every few minutes. Actually, research suggests that, after an interruption, it can take up to 20 minutes to reconnect with a task! So you need to ensure that you have enough time to complete the task. Plan for at least 90 minutes, though two hours is ideal. And don't give in to the temptation to multitask. Scientists have found that multitasking actually makes you less productive. Being in flow often feels great. But, unfortunately, there are some tasks which can't really be done in this state. More often than not, they are either difficult or simply not enjoyable. So how would you approach them? Well, you can use a different technique: baby steps. Difficult or tedious tasks can make us procrastinate. But procrastination takes a huge psychological toll. An uncompleted task creates tension in your brain. Simply put, you can't stop thinking about it until the job is done. And there's more: procrastination often makes us feel guilt and shame. Guess what people do to avoid these feelings? They procrastinate even more! But you can crush your tendency to procrastinate by taking small, simple steps to complete a task. Say you're dreading writing a big speech. Well, you could tell yourself that you don't need to pen the whole thing at once. You'll just create the keynote. And who knows, maybe while you're putting it together, you may find that you're on a roll, and you'll end up doing more work than you had originally planned. By breaking tasks down in this way, you make it much more likely that you'll get the job done.

## **Use your study time efficiently.**

What do you think Bach has to do with studying? If you're scratching your head, don't worry - the connection is far from obvious. Many studies suggest that there's an intimate relationship between music, mood, and learning. Some types of music can greatly increase our ability to learn. This is where Bach comes in. Baroque music that has 50 to 80 beats per minute is particularly suitable for creating focus. Music is just one life hack that can help us use our brain's lesser-known features to foster learning. The key message here is: Use your study time efficiently. Just like music, smell can also help improve our study skills. We often associate smells with memories. Think about how the aroma of a particular spice might take you back to your grandmother's kitchen. This is just one example of how great smells are at bringing memories to the forefront of our brains. Now you know this, try using smells the next time you're studying for an exam or preparing for a presentation. Rub some essential oil on your wrist when you're learning. Then, repeat right before your exam or presentation. You may find that the smell helps you rekindle your memory! The author, Jim Kwik, also suggests other tricks which can help you learn. For example, you may want to take advantage of so-called primacy and recency. Something you learn right at the start of a lesson tends to stick in your mind for longer. So do things which come right at the end of a session. What does it mean for you? Well, now you know these principles, you might want to plan your learning differently. You might place the most important things at the beginning and end of each lesson, leaving the middle part for things which are less crucial. To make good use of primacy and recency, employ the Pomodoro technique. This method involves breaking up your work or studying into 25-minute chunks of productivity called Pomodoros. Each Pomodoro is followed by a 5-minute break. It's as simple as setting up a timer! Pomodoros can work even better if you combine them with another technique, something known as active recall. It involves reviewing some material and then immediately checking to ensure that it has sunk in. To do this, simply close your book or pause the video you're learning from and write down everything you've learned so far. So you've got to the end of the lesson. Are you now finished? Well, not quite. There's

another trick in the book: spaced repetition. It's all about reviewing your material at regular intervals. Perhaps you could do some studying in the morning, before breakfast, and then again in the evening, before dinner. This will help the information really stick. Next, let's look at what else you can do to remember the new things you've learned even better.

## **Visualization techniques can help increase your memory and concentration.**

Concentration is like a muscle – the more you exercise it, the stronger it gets. Here's one way to pump it up: picture the object of your focus as a glowing ball of light. If you're having a conversation, for instance, that conversation is the glowing ball. When your attention starts to drift, refocus on the bright light. Pretend nothing else exists. This is what's known as a visualization technique; and tricks like this help increase your concentration skills. They also work really well when you need to memorize things. The key message here is: Visualization techniques can help increase your memory and concentration. Many people think that they have either a “good memory” or a “bad memory.” But instead, you may want to think that you have a trained memory or, perhaps, an untrained one. So how do you train your memory? The best approach is to learn to associate words, numbers, or, indeed, anything else you have to memorize, with visual imagery. So, how does it work? Let's look at an example. Consider these words: fire hydrant, balloon, battery, barrel, board, and diamond. If you were asked to memorize this word list, you might do so by repeating the words over and over again. But this method is ineffective. Before too long you'll probably forget all you learned. Instead, try creating a crazy story about the words. You might picture a fire hydrant that's being carried up into the air by balloons. But the balloons are being popped by batteries, and those batteries sit inside huge barrels. The whole contraption – batteries inside of barrels aimed at balloons – is launched into the air by a big board, like a seesaw. And, finally, that board is propped up by a huge diamond. See how much better the words are now cemented in your mind? A similar trick can help you prepare for presentations. It's called the loci method. To use it, first identify the ten key points you want to talk about. Next, imagine a place or a room you know well, and consider a path through it. Now, assign each of your talking points to a different object or place in the room – your bedroom lamp, for instance, might represent your keynote. Finally, practice your presentation, using the walkthrough of your locations, or loci, as a guide. With a well-trained memory, you'll be well on your way to learning a new language, giving great presentations, or simply becoming a well-versed expert.

## **Reading is fundamental to learning, and you can get better at it.**

Let's face it: reading isn't everyone's favorite pastime. To many people, the task seems difficult, boring, time-consuming. For those people, a long day at work is best finished in front of the television or with a video game. But studies show that there is a relationship between reading ability and success in life. The better you are at reading, the more likely you are to get higher-paying jobs; the greater your opportunities to succeed. And

here's something else: reading gives your brain a vigorous workout. It activates many different mental functions at once. It improves memory and increases concentration. If you've given up reading, you've essentially given up learning. The key message here is: Reading is fundamental to learning, and you can get better at it. How fast do you think you can read? For most people, it's about 200 words per minute. Shockingly, most adults read no faster than elementary school kids. That's because classes on how to read usually stop between second and fifth grade. Why are some people slow readers? The answer often lies in what's known as subvocalization. This simply means that, as people read, they pronounce each word in their heads. This limits their reading ability. If you subvocalize, you can only read as fast as you talk. If this sounds like you, do not despair. Your mind is capable of going much faster. To reduce subvocalization, try counting out loud as you read. Just keep saying "one, two, three" and so on as you go down the page. Counting while reading is difficult. But it will train your brain to subvocalize less. You'll begin to see the words rather than saying them. When you learn this skill, reading will feel more like you're watching a movie than hearing a speech. Another great way to reduce subvocalization and read more "visually" is to use a pacer. There's nothing difficult about it: you can start by simply sliding your finger down the page as you read! This technique is effective because our eyes are hardwired to track moving objects. Using a visual pacer can increase your reading speed anywhere from 25 to 100 percent! Of course, none of these techniques will help unless you really commit time to reading. So, schedule at least 30 minutes of reading each day. Now that you can read faster, it's time to crack the final piece of the puzzle: to learn how to think better.

## **To get better at solving problems, try new and different ways of thinking.**

When you hear the word "genius," who immediately comes to mind? Perhaps Albert Einstein or Marie Curie? But the word "genius" isn't just limited to people with high IQ or mathematical ability. There are many different types of intelligence. Think about Venus Williams, for example. In many ways, she, too, is a genius - somebody with extremely high bodily-kinesthetic intelligence. That is to say, she's very good at using her body. The key message here is: To get better at solving problems, try new and different ways of thinking. Learning what type of intelligence you possess is just the first step in thinking better and more efficiently. There are lots of other tricks, too. For example, you can try thinking differently; to approach problems in a manner that's entirely new for you; to break your thinking patterns. One way to do this is to use the "thinking hat" technique. Imagine you have a collection of multicolored hats. Now, when you look at a problem, you can change hats every few minutes. Say you're wearing a red hat. That means it's time to look at the situation emotionally. Or a green hat may call for creativity. But sometimes, even an advanced technique like this may not be enough. To solve some problems, you need to think entirely differently: in an exponential, rather than linear, manner. When you think exponentially, you are no longer solving crisis after crisis after crisis. Instead, you identify the root cause of the problem and attack that. One proponent of exponential thinking is Naveen Jain, innovator and winner of the Albert Einstein Technology Medal. Take his company Viome, for example. Jain formed it because he believes that chronic illness is the world's most important underlying health crisis. So does his company work to find treatments to those diseases? No, Jain took a different approach. Instead of looking for piecemeal solutions, he understood that our immune systems are greatly impacted by how our gut microbes process food. So Jain created a tool for analyzing an individual's gut microbiome. It allows people to optimize



their health by eating the foods that are best suited to them. Your goal might not be to solve major challenges like the one Jain is tackling. But by exploring new ways of thinking, you will bring different perspectives to the table. And this is certain to increase your chances of accomplishing great things.

## Final summary

The key message in these blinks: Many of us limit ourselves with false beliefs about our intelligence or other abilities. But the truth is, you don't have to be born a genius in order to succeed. You just need to cultivate your individual abilities and motivation. You do so by identifying your purpose and using that to push you forward. And then, it's a matter of choosing the most suitable among the many great methods of studying, focusing, memorising, reading and thinking. That will make your learning truly limitless. Actionable advice: Create a not-to-do list. To-do lists are a classic productivity staple, but the trouble is, they don't help you prioritize your tasks. That's where a not-to-do list comes in. To make one, first identify all the tasks that you can't do because of outside circumstances. Then, write down tasks you might consider "busywork." Next, add all the things you might delegate to other people, or tasks for which you already have a system in place. And now have a list of everything you shouldn't try to get done today! Got feedback? We'd love to hear what you think about our content! Just drop an email to [email protected] with Limitless as the subject line and share your thoughts! What to read next: *Ultralearning*, by Scott H. Young Are you hungry for more ways to hack your brain's inherent power and become even better at learning, reading, memorizing, and focusing? Fortunately, our blinks to *Ultralearning* are here to help! In them, you'll delve deeper into some techniques for reducing distractions, such as interleaving. You'll uncover the mysteries of time-slicing to improve your skills, and you'll learn how to elicit feedback to ensure that you've accomplished your goals. So when you're ready to upgrade your learning abilities further, head on over to our blinks to *Ultralearning*.