

Zero to One: Notes on Startups, or How to Build the Future by Peter Thiel

- It's easier to copy a model than to make something new. It is entirely difficult
- The best paths are new and untried
- Technology is a miracle and humans can work miracles through tech
- No authority can prescribe in concrete terms how to be an innovator
- Successful people find value in unexpected places
- Sharing knowledge is critical
- Brilliant thinking is rare, but courage is in even shorter supply
- Most people believe in x but the truth is the opposite of x
- You have to make vertical progress, not horizontal progress — that is zero to 1 — also known as tech
- Technology changes lives
- Technology matters more than anything else in the entire world
- Spreading old ways to create wealth around the world will result in devastation
- Globalization without new technology is unsustainable
- Only computers and communications have improved dramatically since midcentury
- Small groups of people bound together by a sense of mission have historically changed the world for the better
- Startups operate on the principal that you need to work with other people to get stuff done but you need to stay small enough so that you actually can
- A new company's most important strength is new thinking
- This book is an exercise in thinking
- Need to rethink business from scratch
- "Madness is rare in individuals, but in groups, parties, nations, and ages it is the rule" - Nietzsche
- Only seeking profit is pedestrian — don't do it
- Always question what we think we know about the past
- Hamstrung is a good word
- It's hard to blame people for dancing when the music was playing; irrationality was rational given that spending .com to your name could double your value overnight
- Small incremental steps are the only safe path forward
- Planning is arrogant and inflexible, experiment
- Improving on recognizable products offered by successful companies is sometimes the move
- If your product requires advertising or salespeople to sell, it's not good enough
- ^However, that doesn't mean the opposite ideas aren't true (think for yourself)
- Creating value is not enough, you also need to capture some of the value you create (think about profit margins)
- Every firm in a competitive market is undifferentiated and sells the same homogenous products
- Under perfect competition, in the long run, no company in a competitive marketplace makes a profit
- A monopoly is company that is so good at what it does that no other firm can offer a close

substitute

- If you want to create and capture lasting value don't build an undifferentiated commodity business
- All monopolies mask themselves — there's something to be said about Google (it captures so much market share in search that it can afford to do other things)
- The fatal temptation is to describe your market extremely narrowly so that you dominate it by definition
- Monopolists describe their companies as a union of several large markets
- The competitive ecosystem pushes people toward ruthlessness or death
- Build a business that's successful enough to take ethics seriously without jeopardizing its own existence
- Monopolists can afford to think about other things than making money
- Only one thing can allow a business to transcend the daily brute struggle for survival: monopoly profits
- It's possible to invent new and better things — creative monopolists give customers more choices by adding entirely new categories of abundance to the world
- The history of progress is a history of better monopoly businesses replacing incumbents
- If you're in a competitive market, some other undifferentiated competitor will always be ready to take your place
- In the real world outside economic theory, every business is successful exactly to the extent that it does something others cannot. monopoly is therefore not a pathology or an exception, monopoly is the condition of every successful business
- All failed companies are the same: they failed to escape competition
- Creative monopolies means new products that benefit everybody and sustainable profits for the creator
- We preach competition, internalize its necessity, and enact its commandments and as a result, we trap ourselves within it - even though the more we compete, the less we gain
- We teach every young person the same subjects in mostly the same ways, irrespective of individual talents and preferences
- Competition is like war: allegedly necessary, supposedly valiant, but ultimately destructive
- Warring is costly business
- There are crowds competing for obvious prizes, don't get caught up in them
- Does the market you're entering in even make sense?
- If you can't beat a rival, it may be better to merge
- Calmer heads always prevail. Hot heads fight for things that don't matter. Always make sure to approach a heated situation with a clear head.
- It takes time to build valuable things and that means delayed revenue
- Most of a tech company's value will come at least 10-15 years in the future
- For a company to be valuable, it *must* grow and *endure*
- Do not focus on short term growth
- Nobody knows everything
- You must think critically about the qualitative characteristics of your business
- Proprietary technology, network effects, economies of scale, and branding — all essential
- Proprietary technology must be at least 10 times better than its closest substitute
- You can also make a 10x improvement through superior integrated design (APPLE)

- Network effects: if all your friends are on facebook it makes sense for you to join facebook
- Network effects businesses must start with especially small markets
- Economies of scale: a monopoly business gets stronger as it gets bigger
- Software startups can enjoy especially dramatic economies of scale
- Branding: have to protect a company's brand (you have a monopoly on this too)
- When Steve Jobs returned to Apple, he didn't just make Apple a cool place to work, he slashed product lines to focus on the handful of opportunities for 10x improvements. No technology company can be built on branding alone
- You need to choose your market carefully and expand deliberately
- If you think your initial market might be too big, it almost certainly is
- The perfect target market for a startup is a small group of particular people concentrated together and served by few or no competitors
- Any big market is a bad choice
- A large market will either lack a good starting point or it will be open to competition
- Cut throat competition means your profits will be zero
- Jeff Bezos for example, started with books
- eBay started with intense interest groups
- The most successful companies make the core progression to first dominate a specific niche and then scale to adjacent markets — a part of their founding narrative
- But if you truly want to make something new, the act of creation is far more important than the old industries that might not like what you create
- Disruptive companies often pick fights they can't win — don't argue over petty stuff
- Avoid competition as much as possible
- It is much more important to make the last great development in a specific market instead of being a first mover. That way, you can learn from past mistakes. You must study the endgame before everything else.
- You are not a lottery ticket
- Success is never accidental
- Every company starts in unique circumstances and every company starts only once. Statistics don't work when the sample size is one.
- Strong men and women believe in cause and effect
- If you treat the future as something definite it makes sense to understand it in advance and to work to shape it
- Have a very definite (and optimistic) view of the future
- Avoid indefinite pessimism
- Avoid definite pessimism
- Big plans for the future have unfortunately become archaic curiosities
- To an indefinite optimist the future will be better because he doesn't know how exactly, so he won't make any specific plans
- Finance epitomizes indefinite thinking because it's the only way to make money when you have no idea how to create wealth (ie Goldman)
- Only in a definite future is money a means to an end, not the end itself
- Indefinite optimists don't have any specific plans for the future
- Systematic knowledge of the current range of human lifespans has made that range seem natural. Today, our society is permeated by the twin ideas that death is both inevitable and

random

- In-definite optimism may pose an even greater challenge for the future of biotech
- US companies are letting cash pile on on their balance sheets without investing in new projects because they don't have any concrete plans for the future
- Definite optimism works when you build the future you envision
- How can the future get better is no one plans for it?
- Minimum viable products suck
- Why should you expect your business to succeed without a plan to make it happen?
- The greatest thing Jobs designed was his business. Apple imagined and executed definite multi-year plans to create new products and distribute them effectively
- You CAN change the world
- Founders only sell when they have no more concrete plans for the company, in which case the acquirer probably overpaid
- Definite founders with robust plans don't sell, which means the offer wasn't high enough
- We have to find our way back to a definite future
- A startup is the largest endeavor over which you can have definite mastery
- The important thing to remember is that you are *not* a lottery ticket
- Never underestimate exponential growth
- Use the power law to your advantage
- Most startups fail and most funds fail with them
- Venture returns don't follow a normal distribution overall. Rather, they follow a power law: a small handful of companies radically outperform all others. If you focus on diversification instead of single-minded pursuit of very few companies that can become overwhelmingly valuable, you'll miss those rare companies in the first place
- The biggest secret in venture capital is that the best investment in a successful fund equals or outperforms the entire rest of the fund combined
- Two rules for VC: only invest in copies that have the potential to return the value of the entire fund. Second rule: there can't be any other rules because the first one is too restrictive
- VCs must find the handful of companies that will successfully go from 0 to 1 and then back them with every resource
- Every company in a good venture portfolio must have the potential to succeed at a vast scale
- Once you think that you're playing the lottery, you've already psychologically prepared yourself to lose
- VCs usually spend even more time on the most problematic companies than they do on the most obviously successful ones
- Less than 1% of new businesses started each year in the US receive venture-funding and total VC investments disproportionately propel the entire economy
- Venture backed companies create 11% of all private sector jobs
- Every entrepreneur must think about whether her company is going to succeed and become valuable
- Investors who understand the power law make as few investments as possible
- An entrepreneur cannot diversify herself
- An individual cannot diversify his own life by keeping dozens of equally possible careers in ready reserve
- You should focus relentlessly on something you're good at doing but before that you must think

hard about whether it will be valuable in the future

- The power law means that differences between companies will dwarf the differences in roles inside companies
- In a power law world, can't afford not to think hard about where your actions will fall on the curve
- You can achieve difficult things, but can't achieve the impossible
- Think about: what valuable company is nobody building?
- If everything worth doing has already been done you may as well feign an allergy to achievement and become a barista
- Religious fundamentalism for example allows no middle ground for hard questions
- In between - the zone of hard truths - lies heresy
- Four social trends have conspired to root out belief in secrets
- First is incrementalism: do what you say one step at a time and you shall be rewarded with numbers (this leads us to chase numbers and grades instead of actual learning)
- Second is risk aversion: If your goal is to never make a mistake in your life, you shouldn't look for secrets. The prospect of being lonely but right - dedicating your life to something that one else believes in - is already hard. The prospect of being lonely and wrong can be unbearable.
- Third is complacency: DO NOT BE COMPLACENT. Just because you got into a good, just because you're surrounded by privilege doesn't mean you'll succeed
- Fourth is flatness: The voice of doubt can dissuade people from even starting to look for secrets in the first place
- We have given up our sense of wonder at secrets left to be discovered
- In democratic society a wrongful practice persists one when most people don't perceive it to be unjust
- To say that there are no secrets left today would mean that we live in a society with no hidden injustices
- Belief in secrets = innovation
- Having abandoned the search for technological secrets, HP obsessed over gossip. As a result, by late 2012 HP was worth just \$23 billion- not much more than it was worth in 1990
- You can't find secrets without looking for them. Belief in secrets is an effective truth
- There are many more secrets left to find they will yield only to relentless searchers
- Only by believing in and looking for secrets could you see beyond the convention to an opportunity hidden in plain sight
- If insights that look so elementary in retrospect can support important and valuable businesses, there must remain many great companies still to start
- There are two kinds of secrets: secrets of nature and secrets about people
- Natural secrets exist all around us - to find them one must study some undiscovered aspect of the physical world
- What secrets is nature not telling you? What secrets are people not telling you?
- People who think they know everything, actually know nothing
- Every great business is built around a secret that's hidden from the outside. A great company is a conspiracy to change the world. When you share your secret the recipient becomes a fellow conspirator.
- **Foundations**
- A startup messed up at its foundation cannot be fixed

- Fundamental questions were open for debate by the framers during the first few months they spent together at the constitutional convention
- If you choose the wrong partners or hire the wrong people — these mistakes are very hard to correct after they are made
- You cannot build a great company on a flawed foundation
- Choosing a co-founder is like getting married, and founder conflict is just as ugly as divorce
- But if founders develop irreconcilable differences, the company becomes the victim
- Founders should share a pre-history before they start a company together — otherwise, they're just rolling dice
- Everyone in your company needs to work well together
- It's very hard to go from 0 to 1 without a team
- You need good people who get along, but you also need a structure to help keep everyone aligned for the long term
- Sources of misalignment: ownership (who legally owns a company's equity? — founders, employees, and investors), possession (who actually runs the company on a day-to-day basis? — employees and managers), control (who formally governs the company's affairs? — founders, investors)
- To see misalignment at its most extreme, just visit the DMV
- The CEO of a huge company like GM, for example will own some of the company's stock, but only a trivial portion of the total. Therefore he's incentivized to reward himself through the power of possession rather than the value of ownership
- Startups are small enough that founders usually have both ownership and position. Most conflicts in a startup erupt between ownership and control — that is, between founders and investors on the board
- In the boardroom, less is more
- That is why it's crucial to choose wisely: every single member of your board matters. Even one problem director will cause you pain, and may even jeopardize your company's future.
- By far the worst you can do is to make your board extra large
- A huge board will exercise no effective oversight at all
- If you want an effective board, keep it small
- As a general rule, everyone you involve with your company should be involved full time
- Anyone who doesn't own stock options or draw a regular salary from your company is fundamentally misaligned
- That's why hiring consultants doesn't work. Part-time employees don't work.
- Cash is not king
- For people to be fully committed, they should be properly compensated
- A company does better the less it pays the CEO — that's one of the single clearest patterns I've noticed from investing in hundreds of startups. In no case should a CEO of an early-stage VC backed startup receive more than 150,000 per year in salary
- A cash poor executive, by contrast, will focus on increasing the value of the company as a whole
- Low CEO pay also sets the standard for everyone else
- If a CEO doesn't set an example by taking the lowest salary in the company, he can do the same thing by drawing the highest salary.
- High cash compensation teaches workers to claim value from the company as it already exists instead of investing their time to create new value in the future.

- Incentive pay encourages short-term thinking and value grabbing. Any kind of cash is more about the present than it is about the future
- Startups don't need to pay high salaries because they can offer something better: part ownership of the company itself
- However, for equity to create commitment rather than conflict, you must allocate it very carefully. Giving everyone equal shares is usually a mistake
- On the other hand, granting different amounts up front is just as sure to seem unfair
- This problem becomes even more acute over time as more people join the company
- Anyone who prefers owning a part of your company to being paid in cash reveals a preference for the long term and a commitment to increasing your company's value in the future
- The founding moment of a company really does happen just once: only at the very start
- A second, less obvious understanding of the founding: it lasts as long as a company is creating new things, and it ends when creation stops. If you get the founding moment right, you can do more than create a valuable company: you can steer its distance future toward the creation of new things instead of the stewardship of inherited success
- **The mechanics of mafia**
- Employees should love their work. They should enjoy going to the office so much that formal business hours become obsolete and no-body watches the clock — this picture has vision, but no substance. Without substance, perks don't work.
- *Beyond professionalism*
- The culture was strong enough to transcend the original company [while talking about paypal]
- Why work with a group of people who don't even like each other? [rhetorical question]
- By taking a merely professional view of the workplace, in which free agents check-in and check-out on a transactional basis, is worse than cold: it's not even rational. Since time is your most valuable asset, it's odd to spend it working with people who don't envision any long-term future together.
- Stronger relationships would make us not just happier and better at work but also more successful in our careers even beyond PayPal
- *Recruiting conspirators*
- Why should the 20th employee join your company?
- Talented people don't need to work for you: they have plenty of options
- Bad answers to this question: stock options, smartest people in the world, challenging problems. General and undifferentiated pitches don't say anything about why a recruit should join your company instead of many others
- Good answers: mission and answers about your team. you have to be able to explain why your mission is compelling. the opportunity to do irreplaceable work on a unique problem alongside great people.
- Ask yourself, are these the kind of people I want to work with? You should be able to explain why your company is a unique match for him personally
- Don't fight the perk war — its pointless
- *What's under silicon valley's hoodies*
- From the outside, everyone in your company should be different in the same way
- The startup uniform encapsulates a simple but essential principal: everyone at your company should be different in the same way — a tribe of like-minded people fiercely devoted to the company's mission

- Startups should make their early staff as personally similar as possible.
- Need every new hire to be equally as obsessed
- *Do one thing*
- On the inside, every individual should be sharply distinguished by her work
- Individual roles can't remain static for long
- The best thing I did as a manager at paypal was to make every person in the company responsible for doing just one thing. Every employee's one thing was unique and everyone knew I would evaluate him or her based on that.
- Defining roles reduces conflict
- More than that, internal peace is what enables a startup to survive at all
- Internal conflict is like an autoimmune disease: the technical cause of death may be pneumonia, but the real cause remains hidden from plain view.
- *Of cults and consultants*
- In the most intense kind of organization, members hang out only with other members. We have a word for such organizations: cults.
- The best startups might be considered slightly less extreme kinds of cults. It's better to be called a cult - or even a mafia.
- **If you build it, will they come?**
- Even though sales is everywhere, most people underrate its importance.
- Distribution may not matter in fictional worlds, but it matters in ours.
- But customers will not come just because you build it. You have to make that happen and its harder than it looks.
- Advertising matters because it works. It works on nerds, and it works on you too.
- Advertising doesn't exist to make you buy a product right away; it exists to embed subtle impressions that will drive sales later.
- Sales is the opposite: an orchestrated campaign to change surface appearances without changing the underlying reality
- What nerds miss is that it takes hard work to make sales look easy
- Like acting, sales works best when hidden
- People who sell advertising are called 'account executives'. People who sell customers work in 'business development'. People who sell companies are 'investment bankers'. And people who sell themselves are called politicians. There's a reason for these redescrptions: none of us wants to be reminded that we're being sold.
- Whatever the career, sales ability distinguishes superstars from also-rans.
- The most fundamental reason that even businesspeople underestimate the importance of sales is the systematic effort to hide it at every level of every field in a world secretly driven by it.
- The engineer's grail is a product great enough that 'it sells itself'. But anyone who would actually say this about a real product must be lying
- If you've invented something new but you haven't invented an effective way to sell it, you have a bad business — no matter how good the product
- *How to sell a product*
- Superior sales and distribution by itself can create a monopoly, even with no product differentiation
- No matter how strong your product, you must still support it with a strong distribution plan
- Customer value (over lifetime) > customer acquisition cost

- *Complex sales*
- If you average sale is seven figures or more, every detail of every deal requires close personal attention. It might take months to develop the right relationships. It's hard to do, but this kind of 'complex sales' is the only way to sell some of the most valuable products
- Politics matters in big deals just as much as technological ingenuity (EPIC TERMS)
- Complex sales requires making just a few deals each year
- Elon Musk is a sales grandmaster
- Complex sales works best when you don't have salesmen at all — usually the CEO is working out most of these deals because they are so large
- Good enterprise sales strategy starts small, as it must
- *Personal sales*
- Might range between 10,000 and 100,000
- The difficulty here to establish a process by which a sales team of modest size can move the product to a wide audience (ZocDoc)
- *Distribution doldrums*
- In between personal sales and traditional advertising there is a dead zone. Distribution channels become too hard to manage. Suppose you're dealing with a \$1000 product. There's no good way to distribute this via a sales team
- *Marketing and advertising*
- TV is a great big megaphone and when you can only afford to spend dozens acquiring a new customer, you need the biggest megaphone you can find
- *Viral marketing*
- If every new user leads to more than one additional user, you can achieve a chain reaction of exponential growth
- Whoever is first to dominate the most important segment of a market with viral potential will be the last mover in the whole market
- *Power law of distribution*
- Most businesses get zero distribution channels to work: poor sales rather than bad product is the most common cause of failure. If you can get just one distribution channel to work, you have a great business
- *Selling to non customers*
- 'This company is so good that people will be clamoring to join it'. 'This company is so great that investors will be banging down our door to invest.
- Selling your company to the media is a necessary part of selling it to everyone else. Nerds who instinctively mistrust the media often make the mistake of trying to ignore it.
- The press can help attract investors and employees
- *Everybody sells*
- Look around. If you don't see any sales-people, you're the salesperson
- **Man and machine**
- Computers already have enough power to outperform people in activities we used to think of as distinctly human.
- Everyone expects computers to do more in the future
- Have to understand: computers are complements for humans, not substitutes. The most valuable businesses of coming decades will be built by entrepreneurs who seek to empower people rather than try to make them obsolete.

- *Substitution vs complementary*
- People compete for jobs, and for resources; computers compete for neither
- *Globalization mean substitution*
- People don't just compete to supply labor, they also demand the same resources
- *Technology means complementarity*
- Computers are exactly the opposite: they excel at efficient data processing, but they struggle to make basic judgements that would be simple for any human
- Computers are tools not rivals
- When we design new computer technology to help solve problems, we get all the efficiency gains of a hyper specialized trading partner without having to compete with it for resources
- *Complementary business*
- Theil talks about Igor, a fraud detection system that works with human beings to solve credit card fraud
- This kind of man-machine symbiosis enabled PayPal to stay in business
- Think of what professionals do in their jobs today. Computers might be able to do some of these tasks, but they can't combine them
- Better technology in law, medicine, and education won't replace professionals; it will allow them to do even more
- Today, more than 97% of recruiters use LinkedIn and its powerful search and filtering functionality
- *The Ideology of CS*
- Today's companies have an insatiable appetite for data, mistakenly believing that more data always creates more value. But big data is usually dumb data. Computer's don't know how to compare patterns from different sources or how to interpret complex behaviors
- The most valuable companies in the future won't ask what problems can be solved with computer alone. Instead, they'll ask: how can computers help humans solve hard problems
- *Ever smarter computers: friend or foe?*
- Indefinite fears about the far future shouldn't stop us from making definite plans today
- **Seeing Green**
- Most clean tech companies crashed because they neglected one more of the seven questions every business must answer
- The 7 questions every business must answer (Tesla is a great example of a company that nailed all seven of these questions)
 - The engineering question: Can you create breakthrough technology instead of incremental improvements?
 - Companies must strive for 10x better because merely incremental improvements often end up meaning no improvement at all for the end user
 - Only when your product is 10x better can you offer the customer transparent superiority
 - The timing question: Is now the right time to start your particular business?
 - Is the tech you're working with ready to be introduced into the market
 - The monopoly question: Are you starting with a big share of a small market?
 - You can't dominate a submarket if it's fictional, and huge markets are highly competitive, not highly attainable
 - The people question: Do you have the right team?

- (Talking about clean tech failures) These salesman-executives were good at raising capital and securing government subsidies, but they were less good at building products that customers wanted to buy
 - Pass on any company whose founders dressed up for pitch meetings
 - Never invest in a CEO that wears a suit — got us to the truth a lot faster
 - If he actually looks like a salesman, he's probably bad at sales and worse at tech
- The distribution question: Do you have a way to not just create but deliver your product?
 - Tesla took this really seriously
 - Better place (a company that outfitted gas cars with batteries) thought its technology spoke for itself, so they didn't bother to market it clearly
 - Tesla decided to own the entire distribution chain
- The durability question: Will your market position be defensible 10 and 20 years into the future?
 - Every entrepreneur should plan to be the last mover in her particular market
- The secret question: Have you identified a unique opportunity that others don't see?
 - (Talking about clean tech) They deluded themselves into believing that an overwhelming social need for alternative energy solutions implied an overwhelming business opportunity for clean tech companies of all kinds
 - Great company have secrets: specific reasons for success that other people don't see
- *The myth of social entrepreneurship*
 - Whatever is good enough to receive applause from all audiences can only be conventional, like the general idea of green energy
 - The best problems to work on are often the ones nobody else even tries to solve
- *Energy 2.0*
- A valuable business must start by finding a niche and dominating a small market
- **The founder's paradox**
- Are all founders unusual people?
- Almost all successful entrepreneurs are simultaneously insiders and outsiders
- *Where kings come from*
- The famous and infamous have always served as vessels for public sentiment: they're praised amid prosperity and blamed for misfortune.
- The Aztecs considered their victims to be earthly forms of the gods and then they cut your heart out. These are the roots monarchy: every king was a living god, and every god a murdered king. Perhaps every modern king is just a scapegoat who has managed to delay his own execution
- *American royalty*
- Celebrities are supposedly American royalty
- But Elvis self destructed, Michael Jackson turned into a drug-addicted shell of his former self. Britney shaved her head.
- Perhaps the only way to be a rock god forever is to die an early death
- We alternatively worship and despise technology founders just as we do celebrities
- (Talking about Howard Hughes, tech entrepreneur, obsessed with flying planes) He liked to remind people that he was a mere mortal, not a greek god — something that mortals say only when they want to invite comparisons to gods. But when his crazy act turned into a crazy life,

he became an object of pity as much as awe

- (Talking about Bill Gates and his fate) A court ordered that Microsoft be broken apart. Gates spend most of his time responding to legal threats instead of building new technology.
- *The return of the king*
- Steve Jobs's return to Apple demonstrated the irreplaceable value of company's founder
- Jobs was also the insider of his own personality cult. He could act charismatic or crazy, perhaps according to his mood or perhaps according to his calculations.
- But all his eccentricity backfired on him in 1985 when Apple's board kicked Jobs out his own company when he clashed with the professional CEO brought in to provide adult supervision.
- The creation of new value cannot be reduced to a formula and applied by professionals.
- Apple's value crucially depended on the singular vision of a particular person.
- Companies that create new technology often resemble feudal monarchies rather than organizations that are supposedly more modern. A unique founder can make authoritative decisions, inspire strong personal loyalty, and plan ahead for decades.
- The lesson for business is that we need founders
- The lesson for founders is that individual prominence and adulation can never be enjoyed except on the condition that it may be exchanged for individual notoriety and demonization at any moment — so be careful
- Founders are important because a great founder can bring out the best work from everybody at his company
- To believe yourself invested with decide self-sufficiency is not the mark of a strong individual, but of a person who has mistaken the crowd's worship — or jeering — for truth.
- The single greatest danger for a founder is to become so certain of his own myth that he loses his mind
- **Conclusion: Stagnation or singularity**
- Is there anything to say about the very distant future?
- Nick Bostrom describes 4 possible patterns
- Recurrent collapse (ups and downs), Plateau, Extinction, or Takeoff
- Which of the four will it be?
- If we define the future as a time that looks different from the present, then most people aren't expecting any future at all; instead, they expect coming decades to bring more globalization, convergence, and sameness.
- It's hard to see how global patterns could last indefinitely
- We cannot take for granted that the future will be better, and that means we need to work to create it today
- Our task today is to find singular ways to create the new things that will make the future not just different, but better — to go from 0 to 1
- The first step is to think for yourself