# TEACHER'S GUIDE

# THROWING ROCKS AT THE GOOGLE BUS

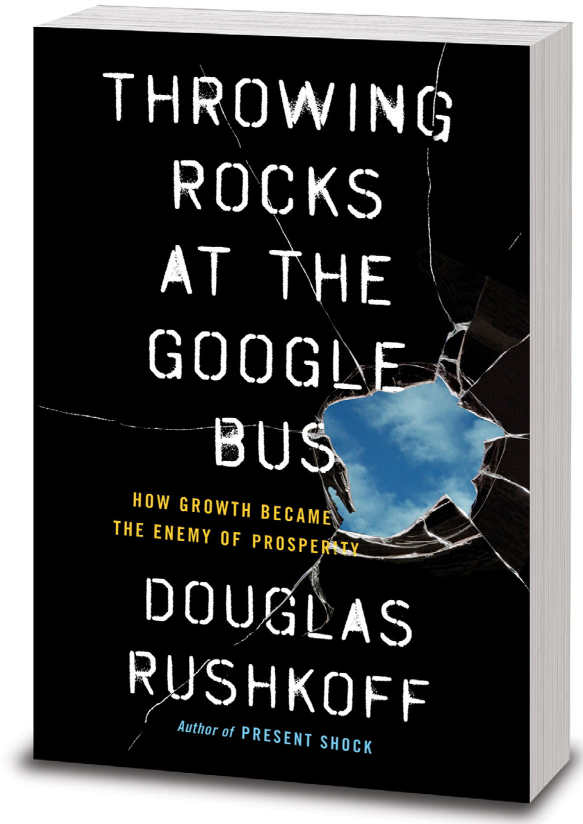
## HOW GROWTH BECAME THE ENEMY OF PROSPERITY

DOUGLAS RUSHKOFF

Penguin Random House
ACADEMIC MARKETING

## HOW TO USE THIS STUDY GUIDE

The following study guide can be used by both reading groups and academic classes to develop insights and engage more productively with the text. It is broken up into chapters so that groups can pace themselves at a chapter per session or discuss the whole book at once.




Each section offers a "Summary" of one chapter for review, then presents several ways of working with the text and evaluating its assumptions and conclusions. Reading groups will want to focus on "Conversation Starters," which pose questions relating excerpts from the text with the lived experiences of the readers. Readers may also want to move on through some of the "Quotes and Questions," where key sections of the book are interrogated.

The rest of the exercises in each section are meant for classroom use and deeper study. They begin with a glossary of key terms from each chapter. Then comes "View and Discuss," which contains a link to a short video either directly or thematically linked to the content of the chapter, as well as a paragraph of discussion questions. That's followed by a set of "Classroom Activities," such as debates, brainstorms, and group projects through which students can argue for or even enact their ideas.

The "Web Quest" gives students a chance to research and explore how the dynamics described in the chapter are playing out in the real world. The "Writing and Media Production" exercises allow students to conduct interviews, make videos, assemble documentaries, and deliver presentations related to the assertions made in the book. Finally, "Learn More" offers opportunities to delve deeper into the subjects of the book and their histories or to find complementary or opposing viewpoints.

## CHAPTER 1: REMOVING HUMANS FROM THE EQUATION

### SUMMARY

In this chapter, Rushkoff explains how industrialism minimizes actual human involvement in the economy. He tracks the history of industrialism, beginning with the invention of the chartered corporation in the late Middle Ages, and argues that the digital economy is an extension—albeit amplified—of those same corporate/industrial practices. The purpose of the chapter is to show how digital businesses are simply following the script of their non-digital predecessors. The objective, all along, was to remove humans from the equation. This means replacing human labor with machines, as well as preventing human beings from reaping the rewards of the value they might create.

The chapter begins with an anecdote about the early days of computer automation. Rushkoff remembers his time as a temp at a law firm whose receptionist was replaced with an "auto attendant." He uses this story to begin a discussion of automation as a means of passing the cost of doing business onto the public. Rushkoff argues that this ends up damaging companies' bottom lines by reducing customer wealth. He goes on to say that digital technology offers a unique opportunity to reveal these processes at work and to reform them.

But for now, the problem is that digital companies have incorporated the extractive and exploitative practices of their predecessors—so the chapter looks to history for the origins of this de-humanizing way of doing business. To understand how we got to this point, Rushkoff discusses the origin of the corporation. In the years following the Crusades, he writes, people enjoyed a peer-to-peer economy in the form of the bazaar. A sizeable and wealthy middle class began to emerge from this unmediated style of trade. The aristocracy, threatened by the rise of this merchant class, outlawed the independent business practices that characterized the bazaar. In their place, the nobility legislated the chartered monopoly, the predecessor of today's corporation. Craftsmen and merchants now needed government approval to run a business or participate in the marketplace. Only those with relationships to the aristocracy received charters and were permitted to operate. The rest had to abandon their businesses and become employees of the chartered monopolies. This is when wage labor was born: people stopped selling the value they created, and instead sold their time.

Rushkoff explains how the values and practices of industrialism grew out of the needs of the chartered monopolies for cheap labor. Industrialism did not favor expensive craftspeople, but instead required low-wage workers to specialize in a single, mindless aspect of manufacturing, alienating them from the production process and making them easy to replace. By abstracting the production process, industrialism also alienates consumers from manufacturers, which creates a need for branding and marketing. And in the end, the culture of advertising and branding alienates people from one another, by creating a society of atomized, niche-marketed consumers.

The chapter reminds readers that the internet was expected to reduce working hours and increase human connection. However, when the internet was opened to commercial activity, it only exaggerated the tendencies of industrialism toward extraction, growth for growth's sake, and the removal of human agency and connection. The economic "operating system" (corporate industrialism) remained the same, while the economic "software" (the web) made it more powerful than ever. That relationship is clearly demonstrated in the platform monopoly model of digital business. The platform monopoly is an example of the "power law dynamic," where increased consumer choice actually leads to a few wildly popular market "winners," a vast number of failures, and virtually no middle ground in between. When advertising and consumer recommendations are determined algorithmically, Rushkoff goes on to explain, the power law dynamic becomes even more exaggerated. A handful of winners take all, while almost everyone else goes belly up.

Automation further disempowers humans in a digital economy as companies like Amazon and Uber use their technologies to replace human workers. Unemployment rises, leaving a majority of people less able to perform in their role as consumers. They can't afford to buy goods and services anymore, so company profits ultimately decline as well.

As an alternative to earning money directly from consumers, companies instead seek to extract value from them in the form of data. Social networks, for example, offer their platforms to people for free in return for information about who people befriend and what media they consume. This "big data" is sold to advertisers, who use it to target and market to the users who generated it in the first place. Rushkoff points out that this "economy of likes" has led to an expectation that artists produce content for free, as a means of building their brands. At some point, the thinking goes, they will be able to sell their social media followings to advertisers. Thanks to the "winner takes all" effect, however, very few artists achieve that level of popularity.

Rushkoff also notes that this drive to acquire and sell data may be short lived. Advertising and marketing have never made up more than three or four percent of our total economic activity. For the high valuations of the digital and social media companies selling this data to make sense, the entire sector of the economy would have to grow many times its size. Who would be left to do the advertising, or even be advertised to?

The chapter closes with a discussion of solutions to put humans back into the equation by shifting the biases of digital corporate capitalism away from winner-take-all extraction and depersonalization. The fixes include:

- **Micropayments for online activity mined for big data.** If records of a person's online activity are sold for profit, then that person ought to receive a cut of the money. Rushkoff believes such efforts may create more trouble than they are worth, by commoditizing too much activity and turning social media activity into a job.
- **Platform cooperatives.** Imagine if Uber drivers owned the platform. Rushkoff believes workers and content creators should own part of the companies that their labor helps to grow. This way, even if their jobs are automated, they will retain ownership of the companies they built.
- **Reduce the workweek.** Technology makes us more efficient, so working hours should be decreasing, not increasing. Rushkoff cites numerous experiments where reduction in hours worked led to increased productivity and many social benefits.
- **Share productivity gains (dividends).** Rushkoff explains how to compensate both labor and communities for their contributions to an enterprise. Increases in productivity needn't benefit shareholders alone.
- **Guaranteed minimum income.** Everyone receives a baseline subsistence income, so that entrepreneurial energy is directed toward real innovation instead of aimless growth. Rushkoff dispels the myths associated with guaranteed income (such as an increase in laziness) and cites examples of when this policy has been implemented successfully.

## CONVERSATION STARTERS

Besides the examples Rushkoff cites, how have you seen people "taken off the books" in your own lifetime?

How would your own life change if you had a guaranteed minimum income? What would you do differently?

In your own life, what, if any, products or services have been made better by "removing humans from the equation?" What "human-free" products or services could be immediately replaced with a "pro-human" alternative?

## QUOTES AND QUESTIONS FOR DISCUSSION

**The value equation**

"The transparency offered by the digital media landscape has the potential to lay bare the workings of Industrialism. Meanwhile, digital technology itself provides us the means to reprogram many business sectors from the ground up, and in ways that distribute value to their many human stakeholders instead of merely extracting it. But doing so requires a rather radical reversal in the way we evaluate business processes and the purpose of technology itself. By reducing human beings to mere cogs in a machine, we created the conditions to worship growth over all other economic virtues. We must reckon with how and why we did this."

*Q: How is the term "value" understood in different sectors of the business community? What are some differences between businesses that distribute value and those that extract value?*

**A bias toward growth**

"Everything is supposed to change except the economic platform and its bias toward growth—which is probably the most arbitrary piece in the whole puzzle."

*Q: Make a list of some examples of the growth bias that Rushkoff discusses in this chapter.*

**Online social climbing**

"Artists and entertainers are no longer performing for human audiences so much as for the big data computers. Nursing one's Twitter or Instagram following is compulsory. Instead of taking acting lessons, the aspiring star must stir up social media attention and keep feeding users more content in order to draw out more likes from them. Given the way attention works online, this means resorting to the least-common-denominator antics: wardrobe malfunctions, sex tapes, and other usually degrading sensationalism. Cultural judgments aside, this online social climbing leads to a strangely circular career path: creators must develop social media networks in order to 'make it.' But then once they've made it, the main thing they have to sell is not whatever talent they've come with but the social media network they have amassed."

*Q: Is "social media climbing" really compulsory for creative people? Is it compulsory for other people? Why or why not?*

**Alternatives to dehumanization**

"Alternatives to the dehumanization scheme and its impact on work in the twenty-first century and beyond require challenging the underlying assumptions of this system and drawing more direct lines between what people need and what they can provide."

*Q: Rushkoff proposes some alternatives to the growth model, including reducing the 40-hour work week, sharing productivity gains, a guaranteed minimum income, and redefining work to address real human needs. Which of these ideas is most attractive to you? Which is most likely to occur in the future? What unintended negative effects may occur if these alternatives are implemented?*

## SOME DEFINITIONS

**Power-law.** In a relationship between two quantities, a change in one quantity results in a proportional relative change in the other quantity, independent of the initial size of those quantities. Power laws arise from the feedback introduced by correlated decisions across a population, creating a "rich-get-richer" effect.

**Algorithm.** A set of steps a computer program uses to accomplish a task. Algorithms are used for data compression, scheduling and other activities. Algorithms are used by Google in presenting results when you type in keywords; Facebook uses algorithms in automating the presentation of information on your News Feed.

**Big data.** Extremely large data sets that may be analyzed computationally to reveal patterns, trends, and associations, especially relating to human behavior and interactions. When you use your smartphone, information is collected in a database that reveals your location, whom you call, how long you talk, the photos and videos you take, and your use of apps.

**Reputational currency.** The use of ratings and peer reviews to create an index of trustworthiness. Reputational currency is used to create forms of peer-to-peer commerce, where one person's recommendation may have more value than another's.

**Metadata.** Metadata is information used to help with the organization and access of data. Tags are used to provide descriptive information about data and enable users to find information, for example.

## VIEW AND DISCUSS

**"GDP Smackdown"**

**https://wetheeconomy.com/films/gdp-smackdown/**

Directed by Chris Henchy

From the "We the Economy" series, this short film addresses controversies about the use of the gross domestic product as a measure of value. After viewing, consider whether "likes" are a real alternative to measures of consumption and production. How do different measures of value (likes, shares, views, and other more traditional measures like sales) affect the kinds of media and technology you consume and create?

## CLASSROOM ACTIVITY

**Epic Battle: The Pros and Cons of Recommendation Engines**

Watch this video created by David Malan for the Introduction to Computer Science course (**https://www.edx.org/course/introduction-computer-science-harvardx-cs50x**) available through EdX to learn about "Recommender Systems" (**https://www.youtube.com/watch?v=Eeg1DEeWUjA**) and the big business of the algorithms that support online enterprises. Then divide into two groups: one team identifies the advantages of recommendation engines while the other team identifies the disadvantages. Using key ideas from the book along with personal experience and analysis, each group takes time to outline the short-term, long-term, individual and societal consequences, both intended and unintended. Each group offers its point of view and teams can ask questions of the opposing side.

## WEB QUEST

**Technology Displacement**

Find an example of a technology that is replacing or displacing human labor and learn what you can about it from at least three different online sources. What aspects of human labor is it replacing? What are the advantages and disadvantages of the substitution?

## WRITING AND MEDIA PRODUCTION

**Conduct an Interview**

Interview someone about their job. Ask them how their work has been impacted by technology. Invite them to describe how technology has reshaped the nature of their work. Evaluate whether or not technology has improved the service or quality of their work and connect your ideas to at least one idea from the reading. Produce a blog entry using a Q & A format or create a 3–5 minute interview video or podcast.

## LEARN MORE

Furnas, Alexander. 2013. "Everything You Wanted to Know about Data Mining But Were Afraid to Ask." **http://www.theatlantic.com/technology/archive/2012/04/everything-you-wanted-to-know-about-data-mining-but-were-afraid-to-ask/255388/**. *The Atlantic.*

Hatton, Cecilia. 2015, October 25. "China Social Credit: Beijing Sets Up Huge System." **http://www.bbc.com/news/world-asia-china-34592186**. BBC.

# CHAPTER 2: THE GROWTH TRAP

## SUMMARY

Chapter two begins by restating the point that corporations are "programmed" to keep growing at any cost, even beyond their capacity to survive. To better understand why this is, Rushkoff introduces readers to Marshall McLuhan's four basic questions—or "tetrad"—of media:

1. What does the medium enhance or amplify?
2. What does the medium make obsolete?
3. What does the medium retrieve that had been obsolesced earlier?
4. What does the medium "flip into" when pushed to the extreme?

Rushkoff argues that the corporation, when it emerged in the late middle ages, amplified the power of shareholders and capital. It obsolesced the local, peer-to-peer marketplaces and bazaars that had defined the everyday society of the high middle ages. Corporatism retrieves the values of ancient Greece and Rome, Rushkoff continues. This is the origin of the Renaissance, with colonialism echoing the expansionism of the Holy Roman Empire. Finally, when pushed to its extreme, Rushkoff argues that the medium of the corporation "becomes a person." That is, when it reached its most extreme degree of expansion and power in the twentieth century, the corporation became legally recognized as a person and granted human rights and protections under the law.

Rushkoff then applies the tetrad to the specific case of Wal-Mart. Wal-Mart, he shows, amplifies the extraction of capital from the communities where it operates; it obsolesces local trade; it retrieves the values of empire and it flips into personhood, both legally and as a brand, via its yellow smiley face mascot. However, this whole process has left Wal-Mart in a predicament: the corporation has so effectively extracted wealth from local communities and obsolesced local trade that its customers have much less money to spend.

Most large corporations are stuck in this "growth trap." In fact, with nowhere left to grow, corporate performance has been declining relative to productivity for years. Corporations have more capital than they know what to do with. Unable to generate more value through organic growth, corporations are reduced to managerial and financial tricks to please shareholders. This often takes the form of self-defeating policies that either starve or sell off parts of the business. Cost-cutting measures further impoverish the very customers who make up a corporation's main source of income. When jobs leave a community, there is less money in the community for the corporation to extract.

Digital technology only exaggerates this process. In theory, businesses succeed in the marketplace through a process called "creative destruction." A new technology will improve on an old one to such a degree that the old tech and its associated industry will be destroyed. In its place, the new technology will develop its own comparable industry and infrastructure, and the economy will keep humming along. However, corporations such as Uber and Amazon do not create comparable industries to the ones they disrupt. Instead, they shrink their respective industries by drawing all market activity onto a single platform. This is what is meant by a "platform monopoly." For example, Uber strives to reduce the taxi industry to nothing but self-employed drivers and their own dispatching algorithm. Amazon strives to reduce the book industry to nothing but publishers and its own mail order business. This, Rushkoff argues, is not creative destruction. It does not remake the industries it disrupts; therefore, it is destructive destruction.

Ironically, this is bad for business. For the same reason that Wal-Marts must close shop after they impoverish their communities, platform monopolies suck wealth out of the overall economy, such that there is less money for consumers to spend on, say, taxis and books. The corporation, Rushkoff argues, must therefore be recoded. The corporation needs to be reconceived as a "steady-state enterprise." There are four steps a company can take to do this:

- **Get over growth.** Rushkoff argues that publicly traded corporations should take a lesson from family-owned businesses. Instead of extracting value to maximize quarterly earnings, corporations ought to reinvest in the markets on which the company depends. Periods of steep growth should be seen as a threat to the long-term health of a company. He points to Toyota as a corporation that understands this approach. When they experienced a $10 billion surge in profits, they took it not as an excuse to expand, but as a signal to proceed with caution, as this windfall could not possibly continue.
- **Take a hybrid approach.** American corporations, however, have legal obligations to their shareholders. Companies must work to return quarterly earnings, or they are in violation of their fiduciary responsibilities. Still, corporations are allowed to experiment with hybrid business practices that pursue actual long-term value, not short-term capital extraction. One way of doing this is through partnering with much smaller companies to develop new products. Proctor & Gamble has had great success with this approach, which led to the development of their wildly lucrative Mr. Clean Magic Eraser. This approach is known as "dual transformation," where a company can sequester elements of its business from ordinary operations, effectively freeing these "labs" and "quasi-open-source" experiments from shareholder pressure for quick profits.
- **Change the shareholder mentality.** Corporations have a legal responsibility to strive for profits. Failing that, CEOs can face shareholder revolts, or (in theory) even prison. But there are ways to reorient shareholders to expect less in the way of short-term payouts, and more in the way of long-term security. Corporations can follow the lead of Unilever, and dispense with quarterly earnings reports altogether. Or, they can shift to a dividends model of shareholder compensation. Either approach primes shareholders for long-term holding, not short term pump-and-dump cashouts. If all else fails, a corporation can always go private, like Dell Computers, as a way to "hit the reset button" and go back to basics. Finally, a corporation can offer stock to its employees, who have a vested interest in the longevity of the company.
- **Choose a new operating system.** There are corporate structures that are not legally obliged to pursue profit at any cost, such as benefit corporations. At its incorporation, the benefit corporation must articulate a primary social or environmental mission, which will legally take precedence over short-term profit. The "flexible purpose corporation" offers a variation on the benefit corporation, by allowing the company mission to be just about anything. Finally, the "low-profit liability company," or L3C, may have a mission more important than profit, and may even solicit public funds. But its profits are limited by law. Of course, non-profit organizations remain a ready alternative, where employees may still earn generous salaries, but profits must be reinvested in the business itself.

## CONVERSATION STARTERS

Are there any businesses that you think could be saved from the growth trap? What steps would they need to take?

Can you identify businesses or organizations that are currently extracting wealth from your community?

## QUOTES AND QUESTIONS FOR DISCUSSION

**Who, or what, is to blame?**

"The economy we're operating in today may have been built to serve corporations, but not many of them are doing too well in the digital environment. Even the apparent winners are actually operating on borrowed time and, perhaps more to the point, borrowed money. Neither digital technology nor the corporation itself is necessarily to blame for the current predicament. Rather, it's the way the rules of corporatism, written hundreds of years ago, mesh with the rules of digital platforms we're writing today."

*Q: What does Rushkoff mean when he says neither digital technology nor the corporation itself is to blame? Who, or what, is to blame? What does this imply in terms of finding solutions to the growth trap?*

**McLuhan's tetrad**

"Marshall McLuhan, the godfather of media theory, liked to evaluate any medium or technology by asking four related questions about it. The 'tetrad,' as he called it—really an updated version of Aristotle's four 'causes'—went like this:

- What does the medium enhance or amplify?
- What does the medium make obsolete?
- What does the medium retrieve that had been obsolesced earlier?
- What does the medium 'flip into' when pushed to the extreme?"

*Q: Pick a technology and apply McLuhan's tetrad to it. Possible examples: Houses, the telephone, clothes. Avoid digital technologies, since those are trickier.*

**Working in the digital world**

"What algorithms do to the trading floor, digital business does to the economy. In the purely rational light of the computer program, a digital corporation is optimized to convert cash into share price—money and value into pure capital."

*Q: How has digital technology affected the way you work or shop? What is lost when the algorithm replaces the human touch? What is gained?*

**Applying Carlotta Perez**

"According to political economist Carlota Perez, who has conducted the most comprehensive analysis of how entire economies respond to technological revolutions, we have passed this way before. In every instance so far of a major technological revolution—whether the steam engine, electricity, the automobile, or television—we have gone through the same five phases: maturity, irruption, frenzy, the turning point, and synergy."

*Q: Do you agree that we are in the "frenzy" stage of Perez's model? If not, why? Track all five stages of the digital revolution. What did the old "maturity" stage look like? When did "irruption" occur? What might "synergy" look like?*

## SOME DEFINITIONS

**Creative destruction.** Coined by the economist Joseph Schumpeter, this concept refers to a process of technological innovation and economic disruption. As new, superior technologies replace old ones, old industries decline and new ones emerge. The classic example is the horse and buggy being replaced by the automobile. Buggy whip manufacturers went out of business, but entire new businesses and careers (mechanics, for example) replaced them.

**Platform monopoly.** An online business that tries to act as middleman for an entire industry. Usually, it accomplishes this by "disrupting" the existing industry—often offering goods and services below cost. When the old way of doing business has been destroyed, then all business must be run through the platform monopoly. The prime example of a platform monopoly is Uber, which hopes to replace the entire taxi and limousine industry with self-employed drivers using its proprietary algorithm.

**Steady-state corporation.** These corporations look to maximize ongoing revenue, stable profits, a healthy workforce, and a satisfied customer base, rather than cash out big with unexpected, high profits. If anything, CEOs should be suspicious of sudden spikes in business activity and see them as potentially unsustainable growth trajectories.

## VIEW AND DISCUSS

**"Not Business as Usual"**

**https://www.youtube.com/watch?v=p_TCDS-V6Aw**

Directed by Lawrence Le Lam

This documentary "tracks the changing landscape of business with the rising tide of conscious capitalism through the stories of local entrepreneurs who have found innovative ways to bring humanity back into business." It includes interviews with business owners who have used the benefit corporation model and other innovative approaches to ensure that their companies remain ethical and pro-human.

## CLASSROOM ACTIVITY

**Devise a Strategy**

Divide the class into three groups. One group will be the LLC group, another will be the benefit corporation group, and the third will be the non-profit group. As a class, decide on a product or industry in which all three organizations will operate (medicine is a great one). Then provide your class with a list of scenarios, and ask each group how their corporation would respond to these challenges. Some scenarios might be: How do you respond to record quarterly profits? How do you respond to a natural disaster? A product recall? Total industry disruption? What are the consequences, both business and ethical, to each style of corporation?

## WEB QUEST

**Restructured Corporations**

Find examples of corporations that have had to restructure, or take other radical steps, to remain viable during a crisis. Find a story of a company that had to go private, or one that had to fight off a hostile takeover. Or, find the story of a CEO who had to respond to shareholders after a less-than-profitable quarter. What challenges did they face? Did the solution help them in the long term or not? How could the crisis have been addressed by a "steady-state" corporation?

## WRITING AND MEDIA PRODUCTION

**Investigate and Report**

Tell the story of a benefit corporation. Research and present a brief report of a benefit, flexible purpose, or other steady-state corporation. Many of these companies have interesting stories behind their founding and are eager to talk with students and members of the public. Email for details, and ask questions about why they chose the steady-state model over the more common quarterly earnings model.

## LEARN MORE

Rodolico, Jack. 2014, June 8. "Benefit Corporations Look Beyond the Profit Motive." **http://www.npr.org/2014/06/18/316349988/benefit-corporations-look-beyond-the-profit-motive**. NPR Morning Edition.

Reuters. 2016, April 26. "BP Looking to Cut Spending After Quarterly Profit Meltdown." **http://fortune.com/2016/04/26/bp-cut-spending-profit-collapse/**. *Fortune*.

# CHAPTER 3: THE SPEED OF MONEY

## SUMMARY

Chapter Three begins by pointing out that our economic system is not based on fixed, pre-existing conditions. It exists as a result of choices made "not by God, but by people." We should think of our economy as a piece of software, and centralized currency is its operating system. Both can be reprogrammed to benefit people rather than to meet arbitrary expectations of limitless growth.

Before we had the centrally-issued, debt-backed currency of today, many different types of money existed. There was, of course, precious metal. Gold and silver-backed currencies were not inflationary, like debt-backed currencies. But they were biased toward saving, and not trade. Moneys with "higher velocity," encouraged trade among small businesses and citizens. Among these high velocity moneys were grain-backed currency and market money, or trading slips for use at the bazaar. Both of these types of currency were poor vehicles for saving, so people tended to invest their money directly into businesses and public projects. A thriving middle class quickly emerged.

Monarchs were threatened by this emerging middle class, and so rewrote the economic operating system to favor themselves. They did so by outlawing high velocity, local currencies, and implementing a system of debt-backed, centrally-issued money. In this scheme, a treasury or central bank lends money into existence. These moneys must be paid back, with interest, to the source: the treasury. A constant need for economic growth, and momentum toward wealth inequality, is thus programmed into the very operating system of the economy.

We have reached the final limits of this system of debt-backed currency and endless growth, Rushkoff argues. Colonialism offered room for capital to continue expanding. Then, the digital revolution created virtual lands to conquer, and human attention to capitalize upon. There is nowhere left to grow. This has led to the self-cannibalizing practices of last chapter's "growth trap," which has led us to the brink of economic collapse.

Luckily, we can reprogram our economy's operating system, through the adoption of alternative currencies. These currencies should favor the velocity of money over growth. We see technologies already in existence that promote velocity, even in our system of debt-backed currency. eBay, PayPal, and Square have all helped to foster peer-to-peer transactions. However, these services sit on top of an infrastructure of credit and debt. We need, Rushkoff argues, a vehicle of trade to match the distributed network characteristics of the internet itself.

Bitcoin is such a model, albeit an imperfect one. Bitcoin is based on a public ledger of every bitcoin transaction ever made. This is called the "blockchain." Through a process of encryption and de-encryption, Bitcoin users can exchange bitcoins safely and reliably. Money can be transferred with no need for a central authority to verify the transaction. Trust, as it were, has been automated. However, like precious metals, Bitcoin is biased toward scarcity and savings, not velocity and trade. A finite number of bitcoins will be minted into existence, making it an inflationary currency poorly suited for escaping the growth trap.

Better alternatives are available. Rushkoff offers four solutions to the problem of money:

**Local currency.** This, Rushkoff explains, is the simplest way to escape the cycle of debt and growth. Communities in the United States and elsewhere may issue their own currencies, although they may not compel businesses to accept these local alternatives. When people use local currency, it ensures that wealth stays circulating within the community instead of being extracted to distant banks or corporate coffers.

**Cash as a utility.** Local currencies are usually pegged to the official currency of a country. However, in instances when there is a glut of labor and resources, but capital is rare, governments may issue "circulation only" labor certificates. These currencies typically lose value, or "demure," to encourage their circulation.

**Cooperative currencies.** The simplest form of a cooperative currency is a "favor bank." In this arrangement, people simply barter their services over an inexpensive digital platform. A babysitter offers her services to a mechanic's family, who in return gives her car a tune-up. "Time dollars" and the Local Exchange Trading System (LETS) offer ways for people to get credits for services they have rendered that can be spent later.

**Local banking.** Rushkoff concludes the chapter by suggesting that banks incorporate local communities in the lending process, through mechanisms such as crowd-funding. This gives the bank the assurance of local buy-in for business loans, and positions the bank as a facilitator of local economic development.

## CONVERSATION STARTERS

What would it take to start a LETS, or even a favor bank, in your community? Who do you think would make use of it?

Do you think that local banking could work for small businesses where you live? Would you participate in a plan like the one described in the book?

If your area were to adopt a local currency, how would it be "programmed?" Would it demure? Would it be pegged to some commodity? Where could it be used?

## QUOTES AND QUESTIONS FOR DISCUSSION

**Back to the future**

"When we fault 'corruption' for our economic woes, we are implying that something initially pure has been corrupted by some bad actors—like a digital file that was once intact but whose data now has errors in it. That is not the case here. Rather, an economic operating system designed by thirteenth-century Moorish accountants looking for a way to preserve the aristocracy of Europe has worked as promised."

*Q: In what way does our current society resemble that thirteenth-century European aristocracy? How can we trace that back to our economic operating system?*

**What do we take for granted?**

"If the chartered monopoly can be thought of as a piece of software, the central currency system on which it runs might best be understood as an operating system. The one we use—the bank-issued central currency of capitalism—is the only one most of us know. Even 'foreign' money is just someone else's bank-issued central currency. Like the fictional computer users who know nothing but Macs, we think the stuff in our wallets or bank accounts is money, when it's really just one way of accomplishing some of money's functions."

*Q: Rushkoff is pointing out that the economy we take for granted is actually a symbolic way of organizing our society. What are some other social practices we take as natural, but actually could be "reprogrammed?"*

**Reprogramming money**

"If we're going to consider remaking money for a digital age, however, we have to decide just what we want it to do. In programmer-speak, what are we programming *for*?"

*Q: What* should *we program our currency for? Rushkoff argues for velocity, but what are other possibilities? What kind of currency would best promote the society that you would like to see?*

**Equal hours?**

"Time dollars are extremely egalitarian, valuing each person's time the same as anyone else's. An 'hour' is worth one hour of work, whether it is performed by a plumber or a psychotherapist. Another version of time dollars, called LETS (Local Exchange Trading System), allows people to negotiate the value of their own hours or services."

*Q: How should a LETS determine the value of each person's hour? What jobs do you consider equally valuable? Which jobs would have to be "weighted?"*

## SOME DEFINITIONS

**Bitcoin.** A system of decentralized, electronic currency. Bitcoin is the name of the set of procedures used to mint bitcoins. This process is based on computers solving highly complex encryption problems. Once the problem has been solved, and its solution verified, new bitcoins are minted. Bitcoins can be used to purchase everything from digital storage to alpaca socks to illegal drugs.

**Blockchain.** The public ledger that records every Bitcoin transaction that ever has been or ever will be. It is a way to ensure both transparency and security in the Bitcoin system.

**Central currency.** Currency that is issued from one sole authority or central bank, such as a king's treasury or the Federal Reserve.

**Operating system.** The program that organizes and runs all the other programs on computer. It is responsible for facilitating the interaction between the machine hardware, applications, and human users. Windows and Mac OS are two examples.

## VIEW AND DISCUSS

**"Coming Home: E.F. Schumacher & the Reinvention of the Local Economy"**

https://vimeo.com/19523798

Directed by Christopher Bedford

In 1973, British economist E.F. Schumacher wrote "Small is Beautiful: Economics as if People Mattered," a book that offered a vision of an economy driven by a desire for harmony, not greed—a local economy based on community and ecological values, not global financial derivatives. *Coming Home: E.F. Schumacher and the Reinvention of the Local Economy* tells the story of the Schumacher Society's remarkable work, which includes founding the nation's first CSA (community-supported agriculture), economic development based on Community Land Trusts, and the creation of the nation's most successful local currency: BerkShares.

## CLASSROOM ACTIVITY

**If *Monopoly* had a Central Bank**

http://valuesystem.livejournal.com/55587.html

Play this clever variation on the classic board game *Monopoly*. How does the presence of a central bank help or harm a player's attempts to save and invest? What would a game of *Monopoly* look like using one of the alternative currency models proposed in the book?

## WEB QUEST

**Shopping for Favors**

Go on the web and find some in-use favor banks, time dollar, or LETS systems. Where are these in use? What kind of goods and services are available through them? Who is permitted to participate, and what is the procedure for joining?

## WRITING AND MEDIA PRODUCTION

**Speak with an Independent Business Owner**

Arrange an interview with a local business owner. Ask them about investment in the community. Do they see it happening enough? Would more community investment help their business? Ask them about the style of local banking and lending that Rushkoff proposes.

## LEARN MORE

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# CHAPTER 4: INVESTING WITHOUT EXISTING

## SUMMARY

Chapter four continues on the theme of investing for sustainability and wealth, rather than runaway growth and the hope of a single big payout. Rushkoff begins by arguing that many corporate CEOs are aware of the "growth trap" problem, but that regulatory (or deregulatory) conditions have set the market on this unsustainable path. While the current situation may sometimes seem beyond our control, it is the consequence of policy and business decisions made by people. Our problem is therefore solvable, if we can make better decisions and reprogram our investments.

To illustrate his point, Rushkoff discusses the state of American retirement plans. American pensions were failing to meet their obligations at the same time that tax law was being reinterpreted in light of Reagan-era trickle-down economics. Courts ruled that the IRA, a retirement savings plan which had been restricted to the self-employed, was deemed an acceptable retirement savings strategy for companies' full-time workers. The 401(k) emerged as a variation on the IRA. Investment brokerage pushed for this new arrangement, as it made each individual employee a client. Corporations supported the change as well, since it freed them from the obligations imposed by pension funds. However, 401(k)s simply do not perform well enough to serve as retirement savings plans. Most people do not have the acumen to oversee their own 401(k)s, and until 2012 there was little to no legal requirement for transparency on the part of providers. 401(k)s rarely outperform the market, and often even lose money in inflation-adjusted dollars.

Consumer online trading software also profits from the amateur investor's lack of sophistication. With their slick graphical interfaces, platforms such as E*Trade offer amateurs the illusion of mastery, while the underlying structure of the securities industry puts them at an essentially insurmountable disadvantage. Indeed, even well-trained human traders are increasingly at a disadvantage, thanks to sophisticated trading algorithms that epitomize automated runaway growth.

High-speed trading algorithms create market conditions where capital growth has little to do with investing in successful companies. Trading algorithms can operate faster than any human trader, buying and selling based on the moment-to-moment fluctuations in the market. By amassing billions of fraction-of-a-penny profits, they extract money capital from the market without providing the actual long-term investment that responsible businesses need to grow.

This has led to a prevailing business model that is not about long-term corporate health, but inflating stock valuation, consciously creating bubbles in share price so that inside investors can cash out before the bubble pops. The most clear cut example of this "business model" is that of the contemporary digital start-up. In this model, the strategy is actually to run-up debt that can't be paid back. Start-ups will acquire capital from "angel investors" far beyond what their company can possibly hope to be worth. However, so long as the start-up continues to take angel investment, it increases its value. The hope is either to sell the start-up to a larger corporation, or to sell out with an inflated IPO (initial public offering). In either case, the bubble of fake valuation quickly pops. Angel investors and the start-ups' founders usually sell out for a handy profit, while latecomers are left with badly devalued (sometimes worthless) shares.

Rushkoff cites numerous examples of this start-up scheme, but he also notes that a few prominent, successful start-ups have succeeded by rejecting the pump-and-dump racket. Kickstarter, Pando Daily, and Meetup, just to name a few, have taken pains to program their companies for long-term sustainability and real value. Some, like Meetup, have resisted the growth trap by insisting on rewarding investors with dividends. Others, like Kickstarter, have stipulated that early investors may not sell shares until some later, unannounced date. Finally, start-ups like Pando have simply bootstrapped, launching with the absolute bare minimum of overhead, and quickly producing a product (in Pando's case, hard-hitting journalism covering Silicon Valley) that people will pay for. These companies, and many others, show that corporations can still be sustainable. But sustainability requires that humans wrest control away from the default economic operating system, and mindfully guide their work toward real value and sustainable prosperity.

Rushkoff closes the chapter by offering three strategies for responsible, human-centered investment. They are:

- **Invest for flow.** Simply put, this means to avoid investments that are geared toward a single, big payout. If an amateur investor tries to "beat the bubble," he or she will almost invariably lose. Avoid hyped-up start-ups, and look for stable returns from companies in it for the long haul. Stocks that pay dividends are an especially good option for investing in flow, as they literally pay you to buy and hold them. Look for companies that create value through flow of revenues, not the extraction of a fixed resource from the ground or an asset from a community.
- **Bounded investing.** Look for ways of investing that will enrich your community, instead of extracting wealth from it. Rushkoff cites the example of the AFL-CIO Housing Investment Trust, which invested union funds into construction jobs, employing union laborers, building affordable housing for union members. Money therefore could circulate among members of the "union community," creating wealth at every step of the process. While this may seem like a narrow investment strategy, Rushkoff argues that it is actually a strategy of diversification. Of the three classical "factors of production" (land, labor, and capital), our current economy over-values capital at the expense of land and labor. Bounded investment helps restore the balance of those three factors.
- **Platform cooperativism:** run your business as a commons. Contrary to popular perception, a commons is not an "anything goes" resource open to exploitation by all. It is a shared resource available to all, but protected by common-sense boundaries and limits. This misunderstanding has led to the misnomer "the sharing economy." In reality, we are not sharing resources like Zipcars, Airbnbs, or the music on Spotify. We are renting them from extractive platform monopolies who often employ a middleman (e.g. an Uber driver) to give the *appearance* of a shared resource. True platform cooperatives are those organizations that structure themselves for ownership by employees and customers. Uber drivers build the value of the Uber platform through their labor. If these drivers earned stock in Uber as they did so, then Uber would truly be part of a sharing economy—it would be a platform cooperative. Some programs, such as the Ecuadorian "Free, Libre, Open Knowledge" program (FLOK) sought to reorient the Ecuadorian economy away from oil, and toward distributed, hyper-local industries. Through the creation of digitally-available intellectual property, priced on a sliding scale based on business size and resources, FLOK sought to turn an entire economy's infrastructure into a commons.

## CONVERSATION STARTERS

This chapter offers examples of companies that have resisted runaway growth. Why are so few companies able (or willing) to follow their lead? Is the solution education? Or are start-ups intentionally playing the "pump-and-dump" game?

What would be a good bounded investment in your community?

## QUOTES AND QUESTIONS FOR DISCUSSION

**From family to free market**

"The whole idea of retaining employees as quasi-family members over the course of their entire careers and then rewarding them with money for life seemed quaint but contrary to the free-market principles of the Thatcher-Reagan era, anyway. Companies and government alike began to treat employees more as independent contractors—free-market players, personally responsible and ultimately dispensable."

*Q: How did this shift in attitudes happen? In what other ways has it affected our society?*

**Fooled by graphics**

"Fully aware of the psychological influence of information access and the illusion of control, online trading brokerages develop advertising campaigns that exploit both of these vulnerabilities. eSignal proclaims, 'You'll make more, because you know more.'"

*Q: Are people really so vulnerable to flashy graphics? Can a professional-looking medium really trick people into thinking they're more professional than they actually are? If so, can you think of other examples?*

**Investors vs. traders**

"In contrast to investors, who are looking to grow money over time by assessing the true value of companies, traders seek to profit from the changing prices of stocks and bonds. The underlying worth of a company doesn't really matter. The trader is looking at ebbs and flows, trend lines and moving averages, bubbles and crashes. For the trader, the massive amounts of data and processing capabilities unleashed by digital technology are important only insofar as they offer new ways of strategizing moves in the game."

*Q: If this is the case, then what are traders "investing" in? Are they investing at all? If not, what are they doing?*

**Runaway capital**

"Economists have long understood that it takes more than money to create goods and services. Labor, land, and capital—together—have been recognized as the 'factors of production' since even before the classical economics of Adam Smith. Some add entrepreneurship as a special category of labor, but it was obvious to all that enterprise requires work and physical resources in addition to seed money. (Labor, land, and capital are analogous to that Talmudic trio of business, real estate, and cash.) Thanks to the rise of the finance industries, capital has diminished the market value of the other two factors."

*Q: Is your own investment portfolio biased toward capital?*

**Closing the commons**

"The commons were originally a set of lands in England owned by the Catholic Church and open to local farmers for grazing. There were strict sets of rules about how much land one could graze and how often, which kept the commons capable of sustaining everyone's flocks in a fair fashion. After King Henry VIII rejected the authority of the pope, those common lands became privatized, or 'enclosed.'"

*Q: What are some contemporary examples of commons becoming "enclosed"?*

## SOME DEFINITIONS

**Angel investor.** A venture capitalist who invests large sums of money into a start-up.

**Capital.** Money or assets, belonging to an individual or organization, and used for business purposes.

**Crowdfunding.** A way to raise money for a business or project by soliciting funds online. Individuals contribute money to the project at its outset (or in-progress), in exchange for rewards or the product itself, when the project is finished.

**IPO.** Initial public offering. When a company makes shares publicly available via the stock exchange for the first time.

**IRA/401(k).** Retirement savings plans. Under these arrangements, companies guarantee monthly or annual contributions to a securities portfolio, which the individual employee is responsible for overseeing. This contrasts with a pension, where the company guarantees a set amount of money to be paid after an employee retires.

**Start-up.** A small, self-starting business, usually digital or web-based.

## VIEW AND DISCUSS

**"Michel Bauwens: FLOK Society & The Social Knowledge Economy"**

https://www.youtube.com/watch?v=Ksds0QROPvk

Michel Bauwens speaks about the opportunities and challenges of the Free, Libre, Open-Knowledge (FLOK) Society, a project founded by three government institutions in Ecuador whose aim is to make a transition to an open-knowledge common society.

## CLASSROOM ACTIVITY

**Make a Dashboard**

Use the example of the amateur stock trader and design a flashy "dashboard" for some other skilled profession (examples could include doctor, mayor, or teacher). As you design your dashboard, think carefully: how am I using design to make a difficult job seem easy? How can I fool the user into thinking they're more skilled than they really are?

## WEB QUEST

**Before and After the IPO**

Find several news stories about a start-up's IPO. Did the start-up live up to its hype? How did the tone of news articles differ before the start-up's IPO versus after? Research the stock value of the now-public start-up in the months following the IPO. Did the stock retain its value? Did its value increase? Decrease? How is the company doing today?

## WRITING AND MEDIA PRODUCTION

**Create a Start-up Plan**

Follow the step that Rushkoff outlines to be a typical start-up (p.187). Write up your business plan. How will you operate in between angel investment rounds? How will you continue to increase your start-up's valuation without turning a profit? When you go public, will you want to stay with the start-up you've created? Or will you have to cash out before the bubble bursts?

## LEARN MORE

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# CHAPTER 5: DISTRIBUTED

## SUMMARY

This brief, final chapter points to evidence from the past that a distributed, human-centered economy is not a new idea. In fact, many of the ideas presented in *Throwing Rocks at the Google Bus* have historical precedent in an economic idea called "distributism." Distributism originates in the writings of Catholic intellectuals G.K. Chesterton, Hillaire Belloc, and even Marshall McLuhan. Distributism is based on the principle of *subsidiarity*. This principle holds that political and economic power should be allotted to the smallest possible party. By this logic, small artisans and family-owned business deserve greater protection and accommodation than large corporations. Communities should exercise self-determination, and capital should serve the interests of people—not the other way around.

If, as McLuhan's tetrad suggests, the digital economy could retrieve these distributist values, then we may be poised for a renaissance to rival any in history. We might retrieve the values of local currency and artisanship. The patronage system of the Italian Renaissance might be retrieved with a better, more distributed patronage of crowdfunding. And just as the Renaissance produced the modern conception of the individual, perhaps our distributed, digital renaissance could revolutionize our understanding of the dignity of the individual.

## CONVERSATION STARTERS

How could the principle of subsidiarity be applied to American society? How would it differ from today's society?

## QUOTES AND QUESTIONS FOR DISCUSSION

**Back to the future**

"As I hope I've shown, digital commerce can be a whole lot more than taking traditional corporate capitalism to the next level. Actually—or at least potentially—it's retrieving something much older and, to my mind, more positive for people and businesses alike."

*Q: Rushkoff lists several ideas and cultural practices that digital distributism might retrieve. What are some other ones?*

**Imagining a new world**

"Where digital industrialism asks the economy to grow infinitely for its own sake, digital distributism aspires to sustainable prosperity. Such a steady state contradicts the growth-based economics of today's digital economy, not least because—unlike infinite growth—the goal of distributed wealth is actually *attainable*."

*Q: What would a society based on digital distributism look like? What would an ordinary workday look like for you? For others?*

**Painful, but necessary?**

"Might the extreme divisions of wealth we're enduring be less a permanent state than the sort of mitosis a cell undergoes just before it reproduces? Could a new economic landscape be emerging—a recovery of preindustrial mechanisms but enabled by digital platforms? Could this crisis be less our economy's death than its rebirth in a new form?"

*Q: How would you answer this question? Is our current crisis necessary? Is it likely to usher in a better tomorrow, as Rushkoff suggests?*

## SOME DEFINITIONS

**Distributism.** An economic concept developed by Catholic intellectuals which tried to conceive an economy that was neither capitalist nor socialist. In the distributist model, workers ought to own the means of their own livelihood, and political power is decentralized, favoring local governance.

**Subsidiarity.** A principle central to distributism. Subsidiarity states that economic and political power should be allotted to the smallest possible unit of society. No power should be given to the federal government that could be adequately wielded by the state. Local governance should take precedent over state rule. Nothing should be bigger than it needs to be.

## VIEW AND DISCUSS

**"Distributed: A New OS for the Digital Economy"**

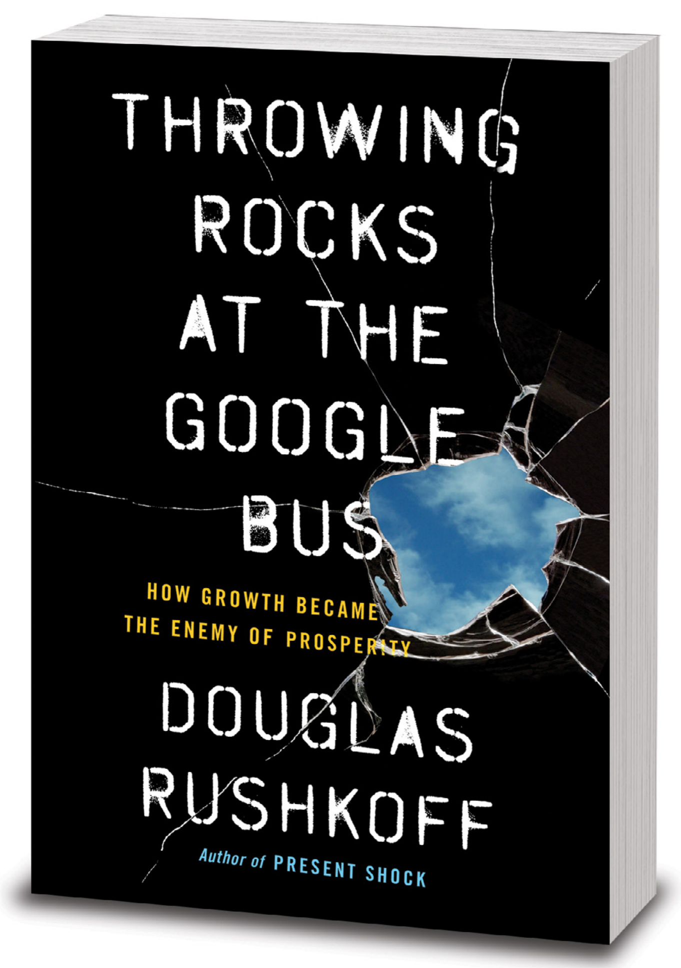
https://www.youtube.com/watch?v=DQKQKCe1xl0

This address to the 2016 South by Southwest conference summarizes the key concepts covered in the book. Rushkoff presents his new economic program using the unique distributive power of the internet to break free of the winner-take-all game defining business today. He also offers a series of practical steps to remake the economy from the inside out.

## CLASSROOM ACTIVITY

**The Distributist Classroom**

Reorganize your class based on the principle of subsidiarity. If you were to take power and distribute it to the smallest social unit, who would write the lesson plans? Would it be one person, or more than one? Who would give the lectures? Who would buy school supplies? Or is your classroom already organized like this?




## WEB QUEST

**Renaissance Now**

Look for communities that are already retrieving the values of artisanship and local sustainability. Researching "intentional communities" is a great place to start. How do these real-world examples practice the retrieved values of the middle ages and renaissance? What lessons can you take and apply to your own community?

## WRITING AND MEDIA PRODUCTION

**The Opposite of a Start-up**

Now, write a business plan for a sustainable, small artisan's business. Good examples might be a small farmer, a website developer, a tutor, or a clothing boutique. How would you make your business sustainable, "human-sized?" What challenges might you face in a growth-based economy?

## LEARN MORE

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