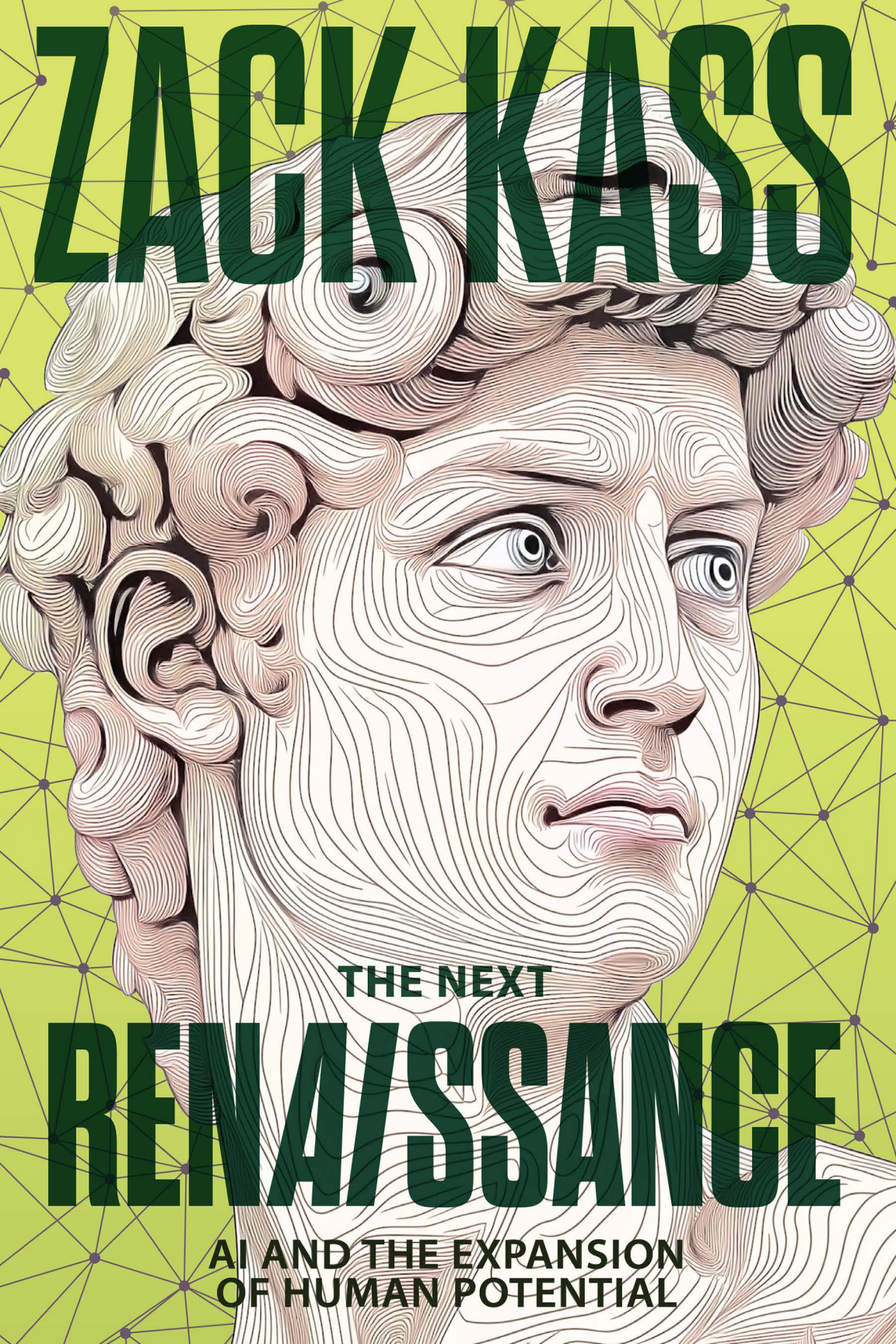
ZACK KASS



THE NEXT RENAISSANCE

AI AND THE EXPANSION OF HUMAN POTENTIAL

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WILEY

Published by John Wiley & Sons, Inc., Hoboken, New Jersey.

The manufacturer's authorized representative according to the EU General Product Safety Regulation is Wiley-VCH GmbH, Boschstr. 12, 69469 Weinheim, Germany, e-mail: Product_Safety@wiley.com.

Library of Congress Cataloging-in-Publication Data is Available:

ISBN 978-1-394-38108-1 (Cloth)
ISBN 978-1-394-38109-8 (ePub)
ISBN 978-1-394-38110-4 (ePDF)

Cover Illustration and Design: "Contoured David"
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Author Photo by Victoria Snider / @byvictoriasnider

To my mom, who taught me to imagine a better future.

To my wife, who is building it.

To my daughter, may she flourish in it.

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Introduction

In October 1930, as the world plunged into the Great Depression, economist John Maynard Keynes published an essay titled *Economic Possibilities for Our Grandchildren*. Only months after the catastrophic stock market crash, Keynes dared to offer a counterpoint to despair. Where most saw devastation, he saw possibility for long-term transformation.

He argued that beneath the turbulence of collapse, humanity was moving, however haltingly, toward a future defined by abundance rather than scarcity—a future in which "the economic problem may be solved," and our challenge would move beyond survival to living wisely and well.

Keynes did not say exactly how such a future would unfold, nor could he have with any credibility. Instead, he pointed toward *his* vision on the horizon, the possibility of a second Renaissance, when technological innovation would end our struggle to meet all basic needs.

Unsurprisingly, most contemporaries dismissed his vision as hopelessly naive, absurdly optimistic, and, amid widespread suffering, tone-deaf.

Ninety years later, though, much of what Keynes foretold has taken shape. Mortality rates have fallen, and almost half of the world's population has escaped extreme poverty. Vaccination, sanitation, education, and technology have all altered the arc of human existence. Today, we find ourselves closer than ever to the vision he described, where humans move beyond survival and are able to thrive.

His prophecy has already played out in ways his contemporaries would never have believed, and yet its total fulfillment lies still ahead. That is the most thrilling realization of all; even a century later, Keynes may ultimately be right about more than we can imagine.

There is, I believe, a vast opportunity still before us—what I'll call, perhaps too cleverly, the RenAIssance—driven by a technology Keynes could hardly have fathomed, artificial intelligence.

The first Renaissance was not merely a burst of art or science; it was cultural rebirth. A fusion of breakthroughs across disciplines. Gutenberg's printing press catalyzed literacy. Da Vinci's anatomical studies advanced medicine. Copernicus redefined our place in the cosmos. Each discovery reinforced the others, building momentum that lifted humanity into an era of awakening.

Today, it feels like we're standing at the edge of a similar inflection point. AI is an intelligence multiplier. Properly harnessed, it could democratize education, revolutionize healthcare, and accelerate innovation. It could help us tear down barriers that have long constrained human potential and reshape the fabric of society itself.

But progress is earned, not granted. Every great transformation brings both opportunity and risk. For AI to truly serve humanity, we will be forced to solve radical new ethical dilemmas, unprecedented economic disruptions, daunting technical challenges, environmental collapse, dehumanization, the loss of identity, and above all, terrifying uncertainty.

I wrote this book to offer a clear-eyed vision for a future that could be more humane, equitable, and beautiful. This future is within reach, provided we choose to shape it.

In the words of Keynes, "My purpose in this essay, however, is not to examine the present or the near future, but to disembarrass myself of short views and take wings into the future." We can move beyond the challenges we face, and build something far greater.

I wrote for those who feel both awe and unease about the world racing toward us. For leaders guiding companies, classrooms, and communities. For parents trying to imagine the world their children will inherit. For anyone who senses that optimism is harder to find than it should be, but still worth searching for.

I also wrote this book for everyone who has ever asked me questions like: *What should my child study in college? What skills will matter most? What keeps you up at night? What jobs will disappear? Is this a race? Who will win? Who will lose? How do we preserve our humanity? What about the environment? Can AI be trusted? What does a good society look like once AI is everywhere?*

Beneath those questions lie deeper ones still: *Is humanity nearing its limits, or just beginning its journey? Does life, on balance, get better*

over time? Can technology expand what it means to be human, or only diminish it?

These questions are too big for prescriptions. They require new frameworks for thinking clearly, acting wisely, and imagining boldly in the face of extraordinary challenges.

This book is for those who know that imagining a better world is not a naive indulgence, but a moral obligation. For those who understand that the work of hope is the work of creation.

Not everyone will be convinced—some cynicism cannot be disabused. But for those willing to imagine the possibilities, this is an invitation to begin.

Ninety years after Keynes's essay, this book is my attempt to ask the question he surely would today: *How much better could the future be?*

How I Got Here

My optimism is rooted in my temperament and upbringing. I came into the world looking forward to the next day, and I had a childhood that reinforced that disposition. It wasn't until I arrived at Berkeley in 2005 as a history student that I found evidence for what I had long intuited, that the arc of human progress bends steadily upward.

Alongside history, I took a few computer science courses that introduced me to a technical curiosity that has been indispensable throughout my career. History taught me that the world gets better; computer science taught me how. The combination of a historian's perspective and a technologist's tools has shaped

how I approach every wave of innovation: informed by the past, and equipped by technology. It's the perspective that still guides me today.

I believe deeply that the world gets better all the time, that today is the best day ever to be born, and that tomorrow will be too. That conviction became the lens through which I watched AI unfold. I've had a front-row seat, at times a hand on the wheel, as AI moved from backroom demos to boardroom agendas, as the work changed from measuring the sentiment of a tweet to solving the human genome. As the power has grown, so has our responsibility to guide it wisely.

My first job was at a company called CrowdFlower (later Figure Eight), which built the first human data-labeling infrastructure, the scaffolding that now fuels modern machine learning. I met the CEO, Lukas Biewald, a true pioneer of the industry and my first mentor, at a poker game. He told me if I won, he'd hire me. A month later I was offered $28 an hour to help his company move from a studio apartment into its first office in San Francisco's Mission District.

I sat on the floor that first night on the job, assembling IKEA desks while my new colleagues debated AI's eventual scientific limit. *How smart could machines eventually get?* I didn't appreciate it then, but there were legendary minds in that room, and most of them agreed: someday AI would transform the world. The sense of possibility was palpable. The pathway was a bit trickier.

At the time, AI's impact was mostly confined to leading tech companies like Google, Facebook, and Amazon, where it primarily powered search, advertising, and product recommendations.

But by 2013, improvements in machine learning algorithms and increased investment from traditional sectors pushed AI into applications people could finally see. Facebook was tagging friends in photos; JPMorgan was detecting fraudulent activity; Spotify was curating personalized playlists; and Apple's Siri was encouraging us to *speak* to a computer. AI had emerged from behind the curtain and into our hands.

Thanks to the trust of CrowdFlower's CEO, I went from assembling furniture to building one of the first go-to-market organizations in applied AI. We helped the world solve daunting problems no one had even attempted before. One of our earliest efforts was Project 4636, launched in the wake of the 2010 Haiti earthquake. In the chaos, thousands of text messages with desperate calls for food, water, and medical support poured in from survivors in both Creole and French. Our platform converted more than 100,000 of these messages into usable maps, allowing relief workers to direct the right aid to where it was needed most. For the first time, AI-driven human–machine collaboration saved lives in real time.

Later, we partnered with the early Trust & Safety teams at companies like Facebook and Instagram to pioneer solutions to another daunting challenge, detecting hate speech and harmful content in images at internet scale. There was no playbook for moderating billions of posts, and no datasets labeled and ready for training. We invented novel processes and technologies that laid the groundwork for content moderation systems still used today.

In 2017, I joined Lilt, an ambitious Stanford spinout with a bold mission to democratize information by solving AI-powered language translation. At the time, translation was essentially the

domain of Google alone. But as I knew from my time at CrowdFlower, small, focused teams could challenge industries long dominated by giants. At Lilt, we built early versions of large language models years before they became widely recognized. By the time I left, we had redefined the standard for machine translation and proved that the future of AI innovation was being shaped by insurgents as much as by incumbents.

Then, in 2021, I joined OpenAI as one of its first hundred employees. As Head of Go-to-Market, I helped the company grow from $1M to $2B in annual revenue and supported the launches of each new product. Even after all of these experiences, nothing could have prepared me for November 30, 2022.

On that day, from the OpenAI offices, we released ChatGPT. Its rapid global adoption, more than 1 million users in a week and nearly 1 billion today, was more than a professional milestone. It was a rupture in time. After 15 years of building these systems, I realized the technology no longer needed me to prove its value. That moment expanded what AI could do, and how people could imagine using it. Now it was people who needed help. Leaders, workers, parents, and communities had to make sense of this groundbreaking technology. They needed to understand its risks, grasp its potential, and decide how to shape it. The most telling moment came when I saw my mom try ChatGPT for the first time. As she typed her first prompt, I felt something I hadn't since the early days of the web—that brief gasp when the future stops being an argument and becomes a tool in your hand. Her face didn't show fear or reverence; it showed possibility. That moment has stayed with me, because it reminds me what this is ultimately about: an ordinary person meeting extraordinary capability, and deciding what to do with the reach suddenly available.

Since the launch of ChatGPT, I've built a global advisory business, taken up multiple academic positions, and spoken to hundreds of thousands of people around the world about how AI will affect their jobs, families, and futures. As part of this journey, I've had the privilege of working alongside the leadership teams at more than 350 of the Fortune 1,000 companies, helping them wrestle with what AI means for their strategies and industries. Those conversations, from Wall Street to Main Street, have convinced me that while the implications of our questions may differ, the hopes and anxieties beneath them are the same.

This realization has deepened in my personal life as well. My wife, Adlee, is a first-grade Waldorf teacher. Watching her in the classroom and on the playground, I've seen how she creates spaces where learning grows out of play, imagination, and trust—qualities no algorithm can replicate. Her work sharpened my sense of what must be protected as technology advances: human values like hard work, collaboration, and compassion, cultivated in sensory-rich, hands-on environments.

Deconstructing Dystopia

As I've spoken to leaders and audiences across the globe, over and over, I'm deeply struck by a common belief. *So* many people I meet think the human experience is in decline.

In much of the developed world, including the United States, United Kingdom, France, Germany, and Australia, up to 70% of people believe their children will be worse off than their parents.[1] There is a crack between the measurable improvements we can witness, and the gloom and fear so many carry. That crack is starting to look like a chasm.

Keynes saw this distortion as well. Even amid the Great Depression, he reminded us that beneath the surface of crisis, hope and long-term progress are waiting to deliver us a better future. We must ask ourselves then, why do we tilt so easily toward dystopia? The answer, in part, lies more in our biology than in our reality.

For most of human history, survival depended on caution over curiosity. When the stakes were life or death, it was far safer to assume the worst, rather than to gamble on the possibility of the best. A rustle in the grass might be wind. Or, it might be a predator. Over thousands of generations, this asymmetry trained the human brain to prioritize potential threats above all else. Psychologists now call this negativity bias. We have an overpowering tendency to give far more weight to risks than to opportunities.

We don't like danger, but we *really* don't like change. Status quo bias gives us a deep preference for familiarity over change, even when the change is demonstrably better. We see this resistance over and over again. Each innovation that now defines modern life was initially met with skepticism and fear because it disrupted what people already knew.

The United States, for example, has resisted adopting the metric system for more than a century, despite it being simpler, universal, and demonstrably better for science, trade, and education. There is no danger in switching, only the discomfort of abandoning what's familiar. Status quo bias explains why Americans cling to feet and inches long after the world moved on.

We are also seduced by rosy retrospection, the bias that paints the past in golden hues and convinces us things were simpler and

better "back then," even if "back then" meant famine, disease, and horrors beyond our comprehension. Together, these biases create a psychological trap where fear feels rational, progress seems suspect, and optimism looks naïve.

Culture amplifies and preys on this neurological wiring. Our books and films imagine collapse with far more intensity than they imagine progress. Orwell and Huxley gave us dystopian visions of control and decay; Hollywood has doubled down ever since. From *The Terminator* to *The Matrix* to *The Hunger Games*, most blockbuster franchises are, at their core, stories about civilization on the brink of collapse, often driven by technology itself. *Star Trek* remains one of the few enduring utopian visions, precisely because almost no others exist. We have so saturated ourselves with narratives of decline that it has become difficult to picture progress at all. These stories, intended as entertainment, are colonizing our imagination and narrowing what we believe is possible.

The news cycle reinforces the imbalance. Fear sells, so catastrophe dominates. Media coverage metrics consistently show that disasters receive orders of magnitude more attention than breakthroughs. A single plane crash can generate weeks of revenue-generating headlines and millions of clicks, while a scientific achievement that saves millions of lives, like a new malaria vaccine or even a breakthrough in fusion energy, may barely register in public awareness. The availability heuristic, which makes us judge how likely something is by how easily we can think of examples, internalizes the imbalance with vivid stories of disaster that dominate our sense of what is possible. We mistake the headlines for the world itself.

But when we step back from instinct and culture, and invite perspective and data to examine the evidence, the story is unmistakably brighter than the one we tell ourselves. By nearly every measure, human well-being has improved dramatically in the last 100 years.

Just two decades ago, one in four people lived in extreme poverty. Today it is fewer than one in ten.[2] Global literacy has risen from 70% to nearly 90% in just 40 years.[3] In 1900, more than 17 people per 1,000 died each year. Today it is fewer than eight.[4] Life expectancy worldwide has doubled in the past century. Violent deaths are lower, proportionally, than in almost any previous era. Vaccines have eradicated smallpox and nearly eradicated polio, saving millions of children's lives. Global GDP per capita has soared, multiplying opportunities and prosperity across continents. More than five billion people now carry a supercomputer in their pocket, with access to the sum of the world's knowledge. And a greater percentage of the global population enjoy access to education, freedom of religion, and legal rights and protections than at any other point in history.

Put plainly: a child born today is more likely to survive, more likely to read, less likely to live in poverty, less likely to die from violence, and more likely to live a long and healthy life than at any other point in human history. That is not conjecture; it is measurable fact.

Despite these realities, many people still tell me they see the world getting worse. Perception often moves differently than reality. Our old instincts tilt us toward the negative, and turbulence feels stronger than steady lift. Imagine riding a gondola up a mountain. The car is rising, but when the wind sways it back and forth, it can feel as if you're moving backwards, down the

mountain. Inside, the motion is unsettling. From a distance, the climb is clear. Progress works the same way—uneven, sometimes jarring, but always trending upward.

But historical progress doesn't excuse extraordinary challenges. Climate change threatens ecosystems and economies. Inequality corrodes trust in institutions and limits opportunity. Civil rights are under siege in places where progress once seemed secure. Wars continue to devastate entire populations and destabilize regions. None of this can be wished away, and optimism should never be confused with apathy. I am not asking you to look away from the awfulness. I am asking you to look toward the solutions.

Perspective matters. Across centuries, humanity has faced crisis after crisis that once looked insurmountable and found ways not to just endure, but to advance. Time and again, we have proven our capacity to adapt, to innovate, to build. The pattern is clear. We are better at creating than destroying, better at renewal than decline.

In the 14th century, as plague, famine, and war ravaged Europe, many people believed they were living through the end of days. Critical institutions that had stood for centuries were crumbling. Fear saturated the culture. Most mothers buried at least one child. Most husbands buried their wives. But from that crucible of despair emerged one of humanity's greatest leaps forward, the Renaissance. What felt like collapse was, in fact, the threshold of renewal.

That is where we find ourselves today. The anxieties of our age—geo-political turmoil, technology, inequality, and uncertainty—are real, but they may be the prelude to another great chapter, if we are brave enough to believe in it and lead it.

To see the path forward, we turn to an era that laid the groundwork for the Renaissance, the Late Middle Ages.

Welcome to the Modern Late Middle Ages

In school, the past is often reduced to a sequence of neatly packaged eras. Textbooks lean heavily on "pre" and "post," as if history pivots in clean breaks. It reinforces the misconception that humanity stumbled in darkness until, suddenly, a light switch was thrown and everything was illuminated. But history has never worked that way. Real change is gradual, less like flipping a switch and more like turning up a dimmer, with the world coming into focus detail by detail.

The Renaissance unfolded slowly, through a mosaic of discoveries whose true significance would only be realized in hindsight. Gutenberg's press wasn't produced en masse until 100 years after his death. The resulting rise in literacy took generations to spread as knowledge slowly slipped beyond monasteries and royal courts. Da Vinci's anatomical sketches nudged medicine forward incrementally, laying foundations for breakthroughs that wouldn't come until centuries later. Copernicus's heliocentric model was long contested before it eventually reoriented humanity's view of itself in the cosmos. Until the internet and industrial manufacturing, ideas and inventions took centuries or millennia to proliferate. "Pre" and "post" Renaissance aren't moments in time, they are periods during which, almost imperceptibly, society slowly inched forward, and the world fundamentally transformed.

The foundations for this slow accumulation rest deeper than most of us realize, though. The Renaissance was preceded by the often-overlooked Late Middle Ages, a period of both

underappreciated innovation and profound suffering that served as a catalyst for the change to come. Advances in navigation, agriculture, and military technology reshaped daily life.

At sea, the magnetic compass and the caravel ship unlocked the possibility of long-distance exploration. The compass gave sailors a reliable sense of direction even on cloudy nights when the stars were obscured, while the caravel's speed and maneuverability made it possible to travel farther and more safely than before. These tools opened the oceans, laying the foundations for global exploration and trade routes that would eventually link continents.

On land, agriculture transformed. The heavy plow allowed farmers to till the dense, rich soils of northern Europe that had long been underused, dramatically boosting crop yields. Windmills and watermills multiplied productivity by harnessing natural forces to grind grain, pump water, and power rudimentary machinery. These gains freed up labor, supported population growth, and created surpluses that sustained expanding towns.

Military innovations reshaped power itself. Gunpowder weapons, like cannons, firearms, and siege technologies, eroded the dominance of knights and castles, destabilizing feudal hierarchies and accelerating the rise of centralized states. Strongholds that had seemed eternal crumbled before new technologies, redistributing political authority and changing the organization of societies.

Individually, each of these breakthroughs might have seemed like a technical curiosity, but together they began to alter the

very structure of European life in the Late Middle Ages. They opened distant horizons, fed growing populations, and reshaped political power.

These human inventions, though, may have had less impact than a far greater power: disease. In the mid-1300s, Europe faced the devastation of the Black Death, a catastrophic plague that claimed nearly half the continent's population. Though this tragedy is well-documented, its transformative ripples often go unnoticed. Peasants, long confined by rigid feudal structures to work nobles' land in exchange for minimal rights, suddenly found themselves with unprecedented leverage. With so many lives lost, surviving workers suddenly became highly sought after. They either demanded higher wages and greater freedoms, or they left, migrating to burgeoning towns in search of new opportunities. Urban centers like Florence, Venice, and Bruges rapidly expanded as peasants reinvented themselves as artisans, traders, and skilled laborers, fueling a vibrant commercial economy.

Towns flourished, currency replaced barter, trade networks expanded, and a powerful middle class emerged. Concurrently, institutions previously viewed as unassailable, notably the Church, began to lose their hold on society. Humanism challenged ecclesiastical authority and transformed education, which had been largely religious and limited to clergy. Mass printing amplified this shift, enabling knowledge and ideas to spread rapidly across Europe. Society grew more informed, increasingly literate, and empowered by a free exchange of information.