

THE 4 LENSES OF **INNOVATION**

A POWER TOOL FOR CREATIVE THINKING

ROWAN GIBSON

AUTHOR OF INNOVATION TO THE CORE



WILEY

PRAISE FOR THE 4 LENSES OF INNOVATION

“Rowan Gibson has done a superb job of ‘unpacking’ what it takes to innovate. His account of great innovators and his Four Lenses framework are bound to stimulate and inspire would-be innovators everywhere.”

Philip Kotler, S. C. Johnson Distinguished Professor of International Marketing at the Kellogg School of Management at Northwestern University

“Can you develop an innovative mind? Yes, you can. And this book is the manual. Rowan Gibson’s *Four Lenses of Innovation* opens the door to understanding innovation. It enables you to develop and nourish big ideas, and put them into practical applications. What an exciting journey!”

John and Doris Naisbitt, authors of *China’s Megatrends* and *The Global Game Change*

“Rowan Gibson provides an insightful look at innovation—enabling the reader to look at the world through new lenses of discovery. This is an excellent piece of work for practitioners and organizations who seek to have innovation as part of their DNA.”

Camille Mirshokrai, Managing Director of Leadership Development, and Partner, Accenture

“*The Four Lenses of Innovation* is a wonderful book—full of inspiring examples and practical advice, it is bound to become a reference book for innovators all around the world. Rowan Gibson has produced another gem on innovation!”

Costas Markides, Professor of Strategy and Entrepreneurship; Robert P Bauman Chair in Strategic Leadership, London Business School

“This book is a must-read for anyone who wants to look beyond mediocre, status quo ideas. At Mars Inc., I use the Four Lenses to help

team members understand that nothing is impossible. It’s a revolutionary thinking method that never fails to provide velocity and perseverance when navigating complex challenges.”

Cedric Bacherle, Mars University Regional Director, and former Innovation Capability Manager, Mars Incorporated

“Rowan Gibson’s *The Four Lenses of Innovation* will inspire you to think big, look afresh at the challenges you face, and take bold action to change the world. I heartily recommend it.”

Robert B. Tucker, author of *Driving Growth Through Innovation*

“*The Four Lenses of Innovation* offers leaders and their teams simply the most understandable and practical tool for catalyzing enterprise-wide innovation. It removes the mystery from the innovation process, providing a common language, system, and structure for spotting and capturing opportunities for radical change.”

Jim Darroch, Vice President, Global Fulfilment, CMMSG Division, Foxconn

“Rowan Gibson shows us how to unlock the potential of innovation. With this book and the four lenses methodology, he encompasses the key perspectives that will help you take a more effective approach to your business challenges, harness new trends, open up new opportunities, and anticipate customer needs.”

Markus Durstewitz, Head of Innovation Methods and Tools, Airbus

“*The Four Lenses of Innovation* will help you kindle the innovation energy within your company. The book, like the methodology itself, is both inspiring and practical. We use the Four Lenses as our main framework for looking at the world in an innovative way.”

Felipe González Soto, Innovation Management Director, Cementos Argos

ALSO BY

ROWAN GIBSON

RETHINKING THE FUTURE

INNOVATION TO THE CORE (COAUTHOR)

THE 4 LENSES OF **INNOVATION**

A POWER TOOL FOR **CREATIVE THINKING**

ROWAN GIBSON

AUTHOR OF **INNOVATION TO THE CORE**

DESIGN BY **ADRIANA MATALLANA**



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*For my Zulma, the wife of my dreams,
who is with me in everything I do, and is
the reason for everything I do.*



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PREFACE

After my speeches and seminars, people often come up and ask me where they can find a book on what I just talked about. I always assumed that my last book, *Innovation to the Core*, in which I dedicated a whole chapter to the Four Lenses of Innovation, would be sufficient to cover the subject. But after hearing the same question from so many people in so many countries, representing such a broad range of companies and industries, it finally became clear to me that the remarkable innovation methodology I have been using, championing, and perfecting all these years has long been crying out for a book of its own.

I have to candidly admit that, for me, the bigger story—indeed, what I consider the most important business challenge of our era—has always been how to embed innovation as a deep, enterprise-wide capability inside our organizations, so that it becomes just as integral to what we do as other capabilities like supply chain management, customer service, or quality. Given that innovation is now recognized globally as the core driver of growth, strategic renewal, and long-term business performance, it's simply ludicrous for a company to hope that it will somehow happen just by chance, or with a minimum of management attention. I have therefore devoted most of my consulting and speaking career to helping organizations make innovation happen in a broad-based and sustainable

way, and I have been wonderfully gratified to see the positive impact this has had on countless companies all around the world. A few years back I also cofounded an Internet portal called *Innovation Excellence* to help make innovation resources, answers, and best practices accessible for the greater good. Today, it's the world's most popular innovation website, and home to a huge international online community. In some small way, I like to think that I have tried to do for enterprise innovation what pioneers like Deming and Crosby set out to do decades ago for quality.

So my attitude toward innovation is that we need to approach it *systemically*. Generating a lot of good ideas is usually a waste of time if a company doesn't build the necessary leadership commitment, management infrastructure, business processes, tools, training and engagement programs, performance metrics, incentives, rewards, cultural mechanisms, and organizational values to nurture innovation all the way from the mind to the market. However, having said that, there remains of course a fundamental need to come up with ideas that are compelling enough to be worth developing and commercializing in the first place. And that is where I believe things are best done *systematically*—using proven methods, tools, and processes to dramatically enhance our creative thinking skills, and to significantly improve the odds of coming up with some radical breakthroughs. Nobody would deny

that serendipity still plays an important role in the innovation process, as it very often has in the past. But what if there was a way to rely less on luck on more on the incredible creative power of the human mind, combined with the formidable execution power of the modern business organization?

In recent years, much of the writing on innovation has focused on the social environments, ecosystems, and networks that seem to best foster creativity, experimentation, and new thinking. This body of work has certainly made an important contribution to the field. But if we are going to make innovation more systematic and less serendipitous, we need to do more than simply create the right kind of culture or network of connections and then sit back and wait for great things to happen. We need to learn how to use our creative thinking skills much more effectively—and more collectively—across and beyond our organizations, so that we can achieve a step change in our ability to spot and exploit innovation opportunities with revolutionary potential.

You and your colleagues may have already employed a systematic ideation methodology in the past to stimulate the flow of new ideas. Maybe it was some form of brainstorming. Or perhaps you used a popular creativity technique like the Six Thinking Hats, lateral thinking, SWOT, TRIZ, random association, SIT, or Design Thinking. Most of the business

executives I interact with have tried some of these tools and techniques, often with a degree of success. So why do they get so excited when they learn about and start using the Four Lenses of Innovation? What could explain the wide and almost instant appeal of this simple yet highly powerful methodology? Why does it take so much of the mystery out of how to come up with breakthrough ideas? I invite you to find out on the pages ahead. Once you have tried the Four Lenses, you will see for yourself just how amazingly effective this methodology is for systematically stretching your thinking along new lines, discovering inspiring new insights, and producing a portfolio of high-quality ideas and radical new growth opportunities.



I have personally introduced the Four Lenses to hundreds of leading companies and tens of thousands of business people in 60 countries across the globe. Many of those companies have worked intensively with the lenses to come up with profitable new products, services, processes, strategies, and business models. Some have used this tool to produce innovations worth hundreds of millions of dollars. In fact, over the last two decades, the methodology has been embraced by a whole host of major players in a diversity of industries including automotive, consumer packaged goods, financial services, telecommunications, electrical appliances, fashion and beauty, pharmaceuticals, oil, industrial chemicals, computer software, energy, mining, architecture, construction, and many more. Now it's my great pleasure to introduce the Four Lenses to you. Or, if you already know something about the technique, to give you a deeper understanding about how it can drive the front end of the innovation process inside your company.

This is not a typical business book, as a quick glance through its pages will tell you. I wanted it to be more of an intellectual journey—one that will take you from the ancient past to the emerging future as it traces the elusive source of creative genius, and the particular thinking patterns that consistently lead innovators to their Eureka moments. It will examine what inspired great thinkers during the Renaissance era, and what inspires the most outstanding business visionaries in our own

day. It will help you to better understand how your brain actually works, and why we find it so difficult to break existing patterns of thought that blind us to new ideas. It will take you inside the minds of a long list of luminaries from Archimedes, Albert Einstein, and Thomas Edison all the way through to Steve Jobs, Jeff Bezos, and Elon Musk, in an effort to illustrate how big ideas are actually built. It will dispel some of the myths that continue to surround innovation, and clarify the critical role that insights play in the process of producing breakthroughs. And it will give you some practical guidelines for using the Four Lenses inside your own organization to facilitate your search for new, innovative solutions.

In many ways, every book is a personal journey, both for the author and for the reader. I certainly found it enlightening to put this book together, and I sincerely hope that reading it proves to be equally enlightening for you.

ROWAN GIBSON
San Jose, Costa Rica
February 2015

ACKNOWLEDGMENTS

First and foremost, I'd like to thank my wonderful wife, Zulma, for her huge support with every part of this book. Often, an author will thank his wife for her great patience during the writing process, and I would certainly like to do that, but Zulma's support was not just passive. She was actively involved in every aspect and every single page of the book, in particular coordinating all the design and image-sourcing that was necessary to bring such a highly graphic book to life. I am deeply grateful for her love, companionship, guidance, and professionalism every day. I could never have written this book without her.

My children—Henry, James, Nicolas, and Camilo—have also been a real encouragement and daily inspiration to me, and my mother and father, June and George Gibson, are the ones who originally recognized my own creativity and gave me the wings to fly.

Unlike my previous books, *The Four Lenses of Innovation* was not just a writing project. It also turned into an epic design project. This is where I want to thank and applaud Adriana Matallana for her spectacular graphics and illustrations, her brilliant styling of the whole book, and her saint-like patience in the face of my seemingly endless changes. A word of appreciation, too, for her partner, Gustavo Valentino, for all his hard work behind the scenes on the graphic production. Thanks also to Peter Barratt-Jones and the team at

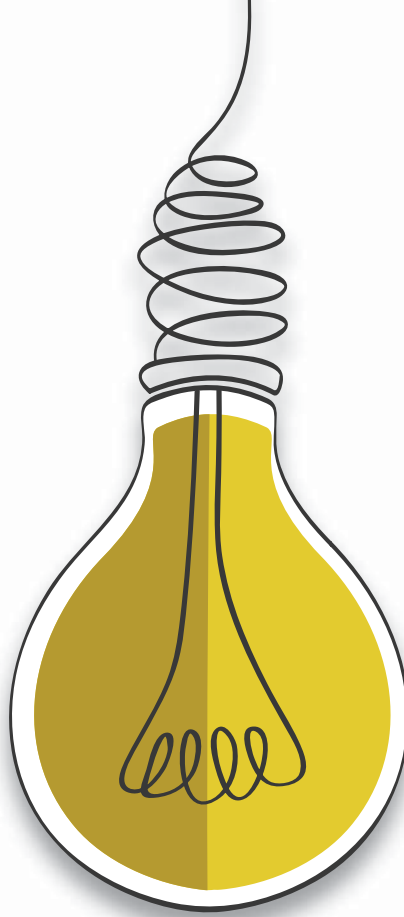
Rethinking Group Design—especially Jan van Buul, Sabine Swinkels, and Bas Gruyters—for their preliminary design ideas and for the front cover illustration and graphics.

I'd like to express my deep gratitude to the publishing team at Wiley, first for reaching out to me initially to ask if I had another book in the works. That early display of interest truly catalyzed the project, and over its course I have had the pleasure of working with Brian Neill, Charlotte Maiorana, Elizabeth Gildea, John Maas, Tiffany Colón, Lauren Free-stone, and Richard Narramore. Also a quick shout-out to independent writer Andrea Meyer for her helpful research.

Thanks to my fellow “book slaves” and dearest friends, John and Doris Naisbitt, for their unfailing support and experienced advice at all times. Thanks to my clients and audience members around the world who have helped me to refine the Four Lenses over the years. And thanks, finally, to the cute little hummingbirds here in Costa Rica that showed up outside my office windows every day to give me a few moments of welcome distraction from writing.



Introduction



Ever wondered where big,
breakthrough ideas
come from?

How do innovators manage to spot the opportunities for industry revolution that everyone else seems to miss? What is it that enables them to imagine radically new or different ways of doing things that will fundamentally change customer expectations and behaviors, or break long-established industry paradigms, or shift the entire basis for competitive advantage? Where do they get the brilliant flashes of inspiration that lead them to their game-changing discoveries?



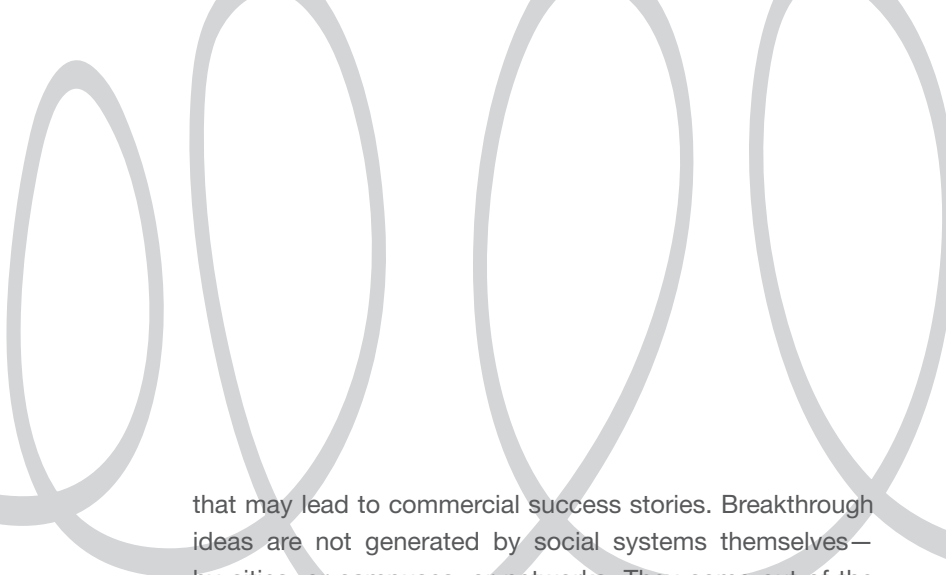
Building a social environment that is conducive to creativity and risk-taking is only part of the challenge

In recent years, we have learned a lot about the innovation process. We now know, for example, that big ideas tend to be born and nurtured in “fertile” environments—cities, markets, campuses, online networks, technology hubs, or industry clusters like Silicon Valley—where there is a rich ecosystem of connections to make recombinant creativity possible. We have seen that innovation thrives in corporate cultures where everyone is invited to submit or pursue their own ideas, and where nobody is punished for making mistakes or trying new things. And we have discovered that ideation can be supercharged by employing “open innovation”—a popular modern approach in which ideas are generated by external constituencies like customers, suppliers, dealers, strategic partners, universities, contract labs, entrepreneurs, or virtual networks of R&D problem solvers, and then captured and integrated into an organization’s own innovation processes.

This important understanding is helping more and more companies create the cultural and constitutional preconditions that serve as catalysts for innovation. They are working hard to stimulate the innovation process by mixing people

from inside and outside the organization with diverse backgrounds, talents, and perspectives, and then watching the sparks fly as they share and recombine different concepts, capabilities, and domains. They are encouraging all of their employees to use their imaginations, suggest new ideas, and even take risks, by fostering an environment where there is a high level of trust and support, and even tolerance for failure; where people are not afraid to speak out, think independently, or propose and try a different way of doing things. They are also changing the physical workspace to make it more open and interactive, and more inspiring for the people who work there.

All of this represents incredible progress. Yet there is much more to making innovation happen, because building a social environment that is conducive to creativity and risk-taking is only half the equation. At the end of the day, you can design the most pro-innovation corporate culture, the richest ecosystem of connections, and the coolest of workplaces, but it’s the people who interact with these environments that actually produce the new combinations of thoughts and technologies



that may lead to commercial success stories. Breakthrough ideas are not generated by social systems themselves—by cities, or campuses, or networks. They come out of the heads of *individuals* who are connected to these communities. So to truly solve the mystery of where new ideas come from, we need to understand not just the environments that enhance our capacity to dream up and introduce new things, but also the thinking processes inside the human mind that lead innovators to their “Eureka moments.”



This book is about
**THE SECOND HALF
OF THE INNOVATION
EQUATION.** It’s
about understanding
particular patterns
of thinking that
unlock our ability to
innovate. It’s about
learning how to
emulate **THE MIND
OF THE INNOVATOR.**





Part One

The mind of the innovator

The elusive source of **creative genius**



Everyone can name a few innovation heroes. Most people reflexively think of modern business icons like Steve Jobs, Sir Richard Branson, or Jeff Bezos. Others recall the “industry builders” of the nineteenth and twentieth centuries, such as Thomas Edison, Henry Ford, or Walt Disney. Some think back to the “great men” of the Renaissance era—like da Vinci, Galileo, or Gutenberg. And of course there are countless other individuals, many of whom are not well known, who have nevertheless earned a place in history’s great “Innovation Hall of Fame.” So we all seem to know what an innovator is. But what’s been harder to define for thousands of years is how innovators actually come up with their ideas.

In ancient times, it was believed that creativity was not a human attribute at all, but solely a divine one. The Sumerians, who are credited with a large number of technological and social innovations at the very beginning of human history, believed that the many creative achievements of their civilization were not

due to their own efforts, but rather were gifts from the gods. The Babylonians and Assyrians, who were direct descendants of the original Sumerian people and builders of mighty empires, believed in guardian angels that guided and blessed their famed inventiveness in architecture, astronomy, mathematics, medicine, philosophy, and literature. As an example, the Babylonian King Nabopolassar, father of Nebuchadnezzar the Great (who was renowned for constructing the Hanging Gardens of Babylon), once said: “He (Marduk) sent a tutelary deity (cherub) of grace to go at my side; in everything that I did, he made my work to succeed.”¹

In the Judeo-Christian tradition, human beings were likewise not considered to be “creative.”² They were makers and users of things that God had created in the first place. Or, if they actually managed to invent something new, it was not thanks to the human imagination, but thanks to the grace, wisdom, and power of God. These “richly blessed” individuals functioned merely as conduits for the divine.



In ancient times creativity was viewed as a divine attribute



The ancient Greeks perpetuated the belief that creativity was not something intrinsic to human beings. In Greek mythology, for example, it wasn't humanity that invented fire, and thus initiated the rise of civilization. Instead, it was Prometheus the Titan, the champion of mankind, who stole it from heaven and gave it to them. As a punishment for this transgression, which was aimed at helping humans on the road to progress, Prometheus was sentenced by Zeus to eternal and agonizing punishment.

Perhaps the best known innovator in Greek mythology was Daedalus (meaning “clever worker”), who was supposed to have invented the crafts of carpentry and sculpture, as well as creating the first masts and sails for the navy of Minos, the king of Crete. He also built the famous labyrinth in which the monstrous Minotaur was kept, which made it almost impossible to slay this fearsome beast. But his most famous invention was human flight. He was the father of Icarus, who mythically flew too close to the sun and fell to his death



when the wax on his wings of feathers melted in the heat. These magical wings were designed and constructed by Daedalus, who used his own pair of wings to successfully fly away from a tower where he had been imprisoned by the king. Pausanias, the Greek traveler and geographer, pointed to the source of this great inventiveness when he later wrote of Daedalus, “All the works of this artist . . . have a touch of the divine in them.” The moral of this mythical tale, which is a recurring theme in Greek mythology, is that human attempts to be inventive or creative (considered the exclusive province of the gods), as well as any pride associated with these attempts, can ultimately do more harm than good. David Landes, the renowned Harvard professor of economy and history, wrote that “the ancients were dreadfully afraid of this emulation of the gods, and not coincidentally the protagonists in each case were punished for their hubris.”³

In the Greek story of Pandora, supposed to be the first woman on earth, each of the gods helped in the act of creation by endowing her with a unique attribute or capability, including physical beauty, the power of speech and music, the skills of needlework, weaving and gardening, and fatefully also the trait of curiosity (which is why she opened the fabled “box,” releasing all manner of evil into the world). Pandora’s name—which meant “all-gifted”—was given to her not because she had any inherent abilities of her own but because every Olympian had given her one of these special gifts. Similarly, the Greeks believed that creativity—the

capacity for imaginative or original thought—was an extrinsic power or gift that was imparted to people by divine spirits.

It was therefore customary for Greek philosophers, poets, and artists to seek their inspiration from mystical goddesses called “Muses.” Another common belief was that at birth everyone was assigned a personal “daemon”—an invisible guardian angel—whose role it was to mediate sacred wisdom, guidance, and motivation from above. The dramatist Menander, the famous historian and essayist Plutarch, and great philosophers such as Plotinus and Plato held this belief. Plato, for example, wrote that these intermediary beings interpreted and transported “divine things to men.” Socrates claimed he had a personal daemon—some form of spiritual oracle or “voice”—that spoke wisdom to him. Indeed, in Hellenistic culture and religion, people attributed even the heroic conquests of Alexander the Great not to the brilliant military acumen of the man himself but to the mighty daemon that guided him.⁴

This belief in a tutelary deity that would attend to a person from birth to death was also shared by the ancient Romans. Interestingly, they called this guardian spirit a “genius.” That’s where the word actually comes from. It is rooted in the Latin verb *gignere*—or, in old Latin, *gegnerere*—meaning “to beget, to bring into being, to produce, to create” (it is obviously also related to the Latin word *genesis*). But whereas we use the term *genius* today to describe a particularly talented

or intelligent person, the ancient Romans used it to refer to a person's spiritual guardian or divine patron. In other words, if Steve Jobs had been some great Roman innovator at the height of the empire, nobody would have called him a genius. Instead, they would have believed he *had* an exceptionally powerful genius that was inspiring his achievements from the supernatural realm. The idea of human creativity just didn't figure into the Roman mind-set. As Cassiodorus, the Roman statesman and writer, once put it, "things made and created differ, for we can make, who cannot create."⁵

When the Roman Empire collapsed in the fifth century AD, the church of the Middle Ages, with its center in Rome, became the heir to Judeo-Christian, Greek, and Roman traditions, including the belief in guardian angels, and the notion that any attempt to exalt human prowess was to be condemned because it represented a denial of mankind's complete dependence on divine grace, inspiration, and influence.

The Greeks believed that everyone had a personal "daemon"—an invisible guardian angel—whose role it was to mediate sacred wisdom and guidance from above. The Romans called this tutelary deity a "genius."



*Everything started to change with the **European Renaissance of the fourteenth to the seventeenth centuries**, and in particular with the birth of **humanism**.*

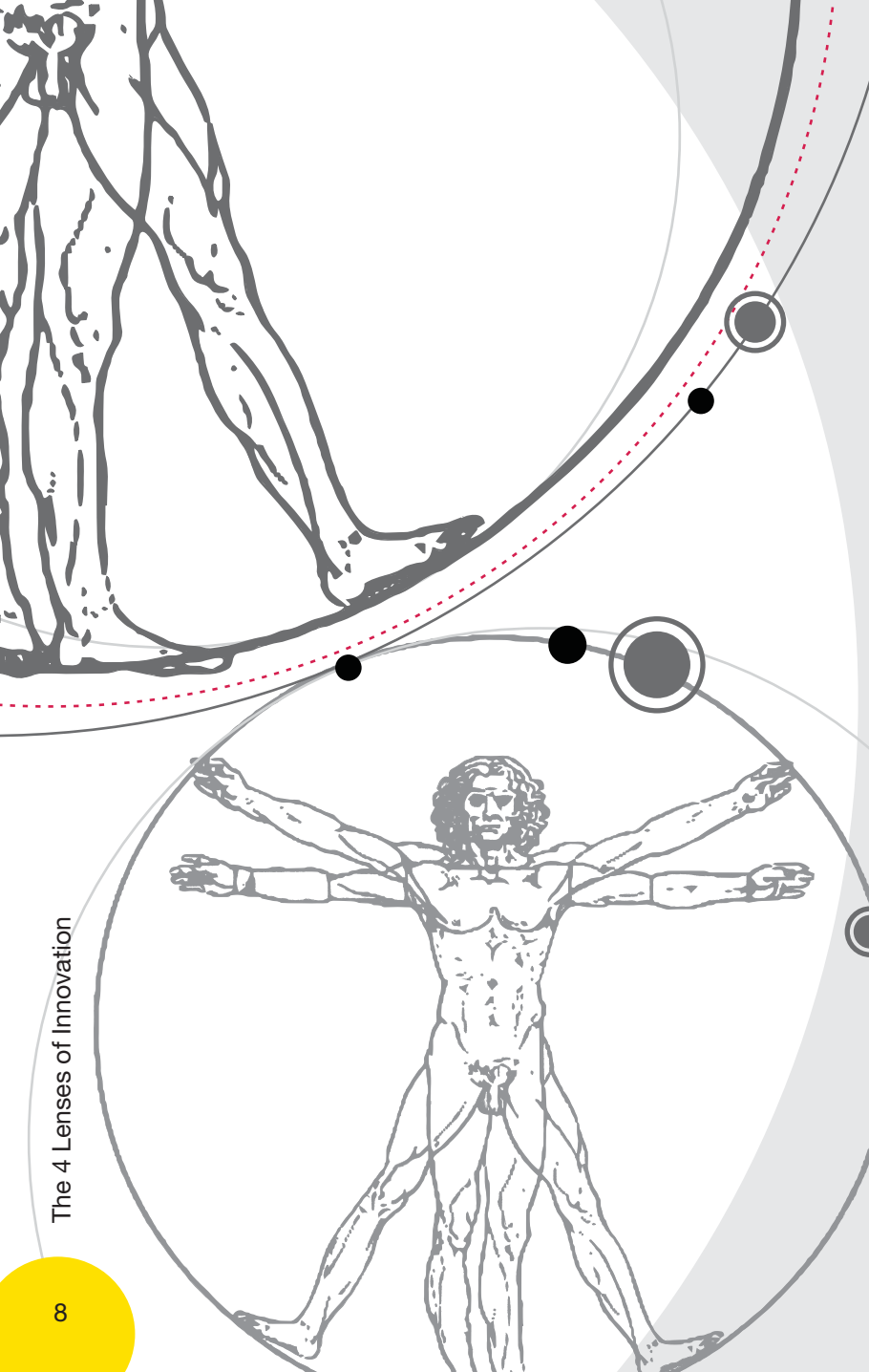
That's when the belief began to spread that great creative or scientific accomplishments were the direct result of a person's own education and abilities, rather than the work of some external divine entity. Suddenly, it was the human being that was the genius. And in this exciting new age, as rationalism slowly eroded the power of mysticism, people were encouraged to tap into their own intellectual and creative capacities in unprecedented ways. Thus, the Renaissance ushered in an era of unleashed human potential, producing a slew of technological, artistic, and cultural achievements. It was an age in which invention and innovation could flourish.

Clearly, one of the main reasons for this remarkable upswing in technological and artistic creativity was the urbanization of Northern Italy, and in particular the emergence of powerful city-states like Florence, Venice, and Milan. In these busy centers of trade and finance, the richest merchants, bankers, and city officials fought to maintain their dominance in part by becoming patrons of the arts, competing with each other to fund the work of the greatest painters, sculptors, architects, writers, philosophers, and scientists of their day.

A prime example is the Medici family of Florence, which owned the largest bank in Europe during the fifteenth century, and which sponsored famous figures like Michelangelo, Leonardo da Vinci, and Bertoldo di Giovanni. The efforts of these patrons brought together a variety of highly talented people from the worlds of art, education, and science, who then had the opportunity to cross-pollinate ideas and insights from their different fields, disciplines, and cultures. This historic intersection point, writes Frans Johansson in *The Medici Effect*, “forged a new world based on new ideas.”⁶

But while such a vibrant network of connections was undoubtedly a fertile breeding ground for innovation, what we primarily want to understand for the purposes of this book is the innovative *thinking patterns and dispositions* that became so prevalent in the Renaissance period.





Essentially, what the Renaissance introduced was a completely new way of looking at the world.

For the first time in history, man—as opposed to deities—became the center of the universe. Humanism emancipated the human mind from the constraints of medieval supernaturalism, opening people’s eyes to see, understand, and appreciate things that had previously been clouded by religion and superstition. Suddenly what mattered was maximizing life in the here and now, and working to make the world a better place in the future, rather than just putting up with things the way they were while waiting for some promised heavenly reward.

Prior to this point, individualism, curiosity, and creativity had been severely restricted by the medieval church. Instead of independent thinking, inventiveness, individual expression, and self-improvement, the church taught humble subordination, conformity, self-denial, and at times even self-hatred, asserting that individualism and ego were synonymous with arrogance, rebelliousness, and sin. Rather than fostering curiosity for the natural world and a desire to understand the individual’s place in it, the clergy demanded that the laws of nature and of the church be accepted with blind faith and unquestioning obedience. Anyone who tried to challenge the dogmas, authority,

or tradition of the papacy on any matter was threatened, punished, or completely done away with as a heretic.

Thus, there was generally very little motivation for suggesting a new idea or a new way of doing things, especially if it involved some attempt to better understand the mechanical forces of nature (which was God's domain, not man's) and then to manipulate these forces in an effort to improve quality of life. Any form of technological progress could potentially be viewed by the church, and by society, as a hubristic violation of divine order. The prevailing attitude in medieval times might be summed up by the old phrase, "If God had intended man to fly, He would have given him wings." In fact, when one Benedictine monk, by the name of Eilmer of Malmesbury, actually attempted to fly in the eleventh century by attaching Daedalus-like wings to his hands and feet and jumping off a tower at Malmesbury Abbey in England, this event only seemed to prove the point. Eilmer fell and broke both his legs, and was lame ever after.

We might even go so far as to say that during the Middle Ages there was no concept of human creativity whatsoever.

The Latin noun *creatio* ("creation") and the verb *creare* ("to bring forth, produce, beget, or create") were applied exclusively to God, as in the expression "*creatio ex nihilo*" (creation from nothing), which described God's original act of creation. Even when the word *create* first appeared in English in the fourteenth century (in Chaucer's *The Pardoner's Tale*) it was used solely as a reference to divine creation. So the notion that humans and their activities could be "creative" simply didn't exist in medieval consciousness. People were generally not expected to be inspired, imaginative, original, or expressive in their thinking and their activities, or to show any pride in their natural abilities. They were expected to be modest in their thoughts and actions, to be subservient to God and to the clergy, as well as to their rulers and masters, and to just get on with whatever they were supposed to be doing in life.

Whereas the medieval mind had been severely suppressed, the Renaissance mind was set free to discover the beauty and the wonder and the significance of every possible phenomenon. It vigorously embraced art, reason, and science in an unfettered search for new knowledge, meaning, and values.

Instead of simply accepting life the way it was, the Renaissance mind sought to improve it for future generations. It set out to demystify and define everything from anatomy to astronomy, with the goal of bettering all humanity. It recognized, for the first time in history, that creativity and genius—as personified by “great men” such as Michelangelo, Leonardo da Vinci, Nicolaus Copernicus, Galileo Galilei, or William Shakespeare—were based on human capabilities rather than supernatural powers.

This liberation of the mind had a profound impact on a world where free thinking and progress had been stifled for a thousand years. It introduced fresh perspectives that threw open a wide and beckoning door of new opportunity, experimentation, and discovery. In particular, we want to look at four of these mental perspectives—four patterns of thinking that were characteristic of the Renaissance mind-set, and that became the fuel for creativity and innovation in this exciting and highly transformational era.



Challenging Orthodoxies

Harnessing Trends



Leveraging Resources

Understanding Needs



1

Challenging Orthodoxies

Perhaps the first thing that comes to mind when we think about Renaissance innovators is their contrarian spirit. It was a time when people began to ask skeptical questions that had never been asked before, and to challenge deeply entrenched beliefs that had long been taken for granted. For example:

Copernicus, Galileo, and Kepler asked:

“What if the Earth is not the center of the Universe? What if it revolves around the Sun along with the other planets?”

Martin Luther asked:

“What if the papacy and the dogmas of the church are actually wrong? And what if we could read the Bible and listen to sermons in our own language, instead of in Latin?”

Petrarch asked:

“What if a person can achieve great things in this world without being ungodly? What if God wants us to use the intellectual and creative powers he gave us to their fullest potential?”

Andreas Vesalius asked:

“What if the dominant theories of human anatomy that have been unassailable for a thousand years are fully misguided? What if the human body functions completely differently than we have been taught? And what if we started dissecting some dead bodies to find out the truth?”

Paracelsus asked:

“What if everything we know about medicine is nonsense? What if certain chemicals and minerals, used in the right dosage, would be a far better way to cure illnesses than traditional practices? What if nature could teach us much more about medicine than ancient books from Greece and Rome?”