

“Innovate Like Edison: The Success System of America’s Greatest Inventor”

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Innovate Like Edison presents Edison’s world-beating innovation methods as a cohesive, practical, and immediately applicable system. Readers will learn to apply Edison’s Five Competencies of Innovation™ either to their work lives or their personal lives, following the essential principles Edison used to generate his record-breaking 1,093 U.S. patents. The Five Competencies are broken down into 25 Elements, each of which serves as a “building block” in the creation of **Innovation Literacy** for the individual, and **Corporate Innovation Infrastructure** for the organization.

Edison believed successful innovation required deep mental preparation as well as strategic, thoughtful execution. *Innovate Like Edison* identifies the methods Edison himself used and imparted to his teams throughout the innovation process. You will learn how to apply his essential ideation techniques, strategies, and practices, significantly improving the ability of individuals and teams to develop an innovation mindset. At the managerial and executive leadership level, you’ll discover how Edison created extraordinary collaborations, analyzed markets, perceived product needs, and generated a powerhouse brand name offering super-value for consumers.

In the current global environment, everyone wants to be innovative, but most people – even managers, executives and recent business school graduates – have received minimal training in the core competencies of innovative thinking. MBA’s from the finest schools may have the best intentions, but they are frequently illiterate regarding the actual mental preparation and practices that promote innovation. As Bennett Goodspeed,

author of The Tao Jones Averages, cautioned, “If Thomas Edison had an MBA he would’ve tried to invent a bigger candle.”

Built upon the masterful vision of Thomas Alva Edison, America’s most prolific innovation genius, *Innovate Like Edison* targets individuals, managers, executives and employees at all levels in any enterprise, in any industry. Based on over two years of research, *Innovate Like Edison* offers readers an in-depth exploration of Edison’s Five Competencies of Innovation™ and the 25 Elements of Innovation™ which support them. Taking readers step-by-step through Edison’s masterful system, the book helps individuals create Innovation Literacy by helping them put into practice Edison’s own innovation methods. The book includes the Edison Innovation Literacy Blueprint™, summarizing the Five Competencies and 25 Elements in a one-page at-a-glance chart, enabling individuals and teams to practice the same techniques Edison himself used. A series of assessments and scoring tools are also provided, allowing readers to increase their Innovation Literacy steadily over time.

Once a critical mass of individuals within an organization has achieved Innovation Literacy, a culture of innovation can flourish. In the process of creating Innovation Literacy, organizations can begin establishing Corporate Innovation Infrastructure by progressively optimizing all of its internal processes and methods to align with innovation. By achieving Innovation Literacy and aligning organizations for innovation, America can sustain its innovation leadership in the newly “flat world” of the 21st century.

If you are already implementing a particular approach to innovation based on the principles of leading strategists Gary Hamel, Clayton Christensen or others, *Innovate Like Edison* will complement and strengthen your total approach. A system for establishing a culture of innovation represents one of the most important – and unique - legacies Edison left to America. No other body of work offers you or your organization a comprehensive approach to achieving Innovation Literacy, creating a culture of innovation, or establishing Corporate Innovation Infrastructure.

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SUMMARY

THOMAS EDISON'S FIVE COMPETENCIES OF INNOVATION™

Competency #1: Solution-Centered Mindset

- Key Innovation Literacy Elements: Goal Commitment, Optimism, Objectivity, Experimentation.

Edison's classic phrase, "Genius is 1% inspiration and 99% perspiration!" is a perfect expression of his own drive and persistence. After thousands of "failed" attempts to harness light, Edison's scientific colleagues counseled him to give up and try something else. He responded that all his failures made his success inevitable, as long as he remained committed to his quest. Edison refused to overlook any pathway that could enable him to solve a problem, even if that pathway required thousands of experiments. For Edison, every hypothesis represented only one part of a broad continuum of possible solutions. In addition to becoming a masterful experimenter who could often accurately guess the outcome of an experiment, he was also able to retrace the failed experiments of his colleagues, finding just the turn required to bring it to success.

Early in life, Edison trained himself to view all outcomes with rigorous objectivity. If you've ever contemplated the question "What could I achieve if I had no fear of failure?" then you have an inkling of the attitude that served as the wellspring of Edison's achievements. His ability to continually try and "fail" without a disturbance of his emotional compass or a distortion of his analytical faculty liberated him from the impasses that even the most disciplined managers often experience. Edison required his teams to assess every laboratory outcome from a point of neutrality, gleaning from each

experiment the components that could be taken forward and tested in the *next* experiment - or applied to other projects. In this way, Edison rapidly got to the next good idea rather than lingering on dead ends. Freed from the emotional static that apparent failures can create, he was able to remain unstoppably persistent in pursuit of his goals, facing all obstacles with an unshakeable conviction that he could out-invent anyone.

Although he viewed individual experimental results with objectivity, Edison was charismatically optimistic about the ultimate realization of his highest goals. He never succumbed to negativity and simply ignored skeptics and doomsayers who continually cast doubt on his ideas. His overriding optimism served as an inspirational counterweight to the intensive experimental work his teams undertook. Edison moved fluidly between scientific objectivity regarding specific data and compelling optimism that, in the long run, every answer he sought would be found. This endeared him to his laboratory staff, and motivated them to persist in their every endeavor.

Despite the extraordinary level of detail required for successfully perfecting an invention, Edison consistently held the “big picture view” in his mind. Throughout his life, he allowed his passionately held visions and goals to propel him forward. Whether it was a dream to buy his own chemistry set, become a Master Telegrapher, design and operate his own laboratory, or outpace the most notable inventors of his era, Edison could readily articulate, “feel,” and visualize his goals.

A Solution-Centered Mindset is the fundamental fuel Edison used to drive innovation forward successfully. By modeling Edison’s objectivity, optimism, goal-setting, and his persistent approach to experimentation, you will learn to drive the process of innovation toward inevitable success.

Competency #2: Kaleidoscopic Thinking

- **Key Innovation Literacy Elements: Ideation, Fluid intelligence, Handling ambiguity, Discerning patterns, Contrarianism.**

Like Leonardo da Vinci, Edison kept detailed notebooks in which he jotted observations about the world around him. His notes described the patterns he witnessed in areas as diverse as botany and chemistry, literature and electricity, telegraphy and sound. Edison used these patterns to link the familiar with the unfamiliar, allowing him to delve more deeply into the processes he uncovered in his experiments. Edison's observations of patterns launched innumerable inquiries, while also adding insight to experiments already in progress. Because he focused on patterns and not theorems or laws, he sidestepped "traditional" ways of thinking about the world.

Edison's insights were so numerous and diverse that one of his patent attorneys remarked, "It's as if he has a kaleidoscope of ideas in his brain." Edison's Kaleidoscopic Thinking techniques included his lifelong practice of working on many different innovation projects simultaneously. His ability to make connections between a remarkable array of apparently unrelated inquiries helped him generate fresh insights into old problems. Among his trademark techniques for generating new ideas was the use of visual metaphors: the use of hand-rendered drawings to look at familiar objects in new ways. This technique, along with verbal analogy and fantastical storytelling, enabled Edison to juxtapose elements he understood with ideas that were still germinating.

Edison's use of notebooks provided the medium for what educators and neuroscientists now call "fluid intelligence," the ability to see patterns and develop conclusions even when the available data is incomplete. Fluid intelligence recruits the mind's ability to cross left/right brain hemispheres, cultivating whole-brain thinking. Fluid intelligence also embraces the mind's ability to observe, challenge, and imagine - the three major components modern brain science indicates are required for the human mind to deal with complexity.

Kaleidoscopic Thinking enabled Edison to forge into unknown territory with ease. You will be guided to apply Edison's approach to Kaleidoscopic Thinking to your most important business problems. Edison's lessons will enhance your ability to discern patterns, deal with ambiguity, and expand your brain's capacity to coordinate information across both hemispheres. By accessing Edison's unique mental tools, your most difficult innovation challenges can be seen with fresh eyes.

Competency #3: Full-Spectrum Engagement

➤ ***Key Innovation Literacy Elements: Flow, Solitude, "Play," Intensity, Balancing simplicity and complexity.***

Although renowned for his incredible stamina and hard work, Edison also understood how to balance his intensity and seriousness with relaxation and play. Edison's lifelong devotion to recreational release and play provided the perfect counterweight to his unceasing drive to create. Long before "work/life balance" became a concern of corporate HR departments, Edison recognized the value of relaxation and time away from the job to help incubate new ideas and revitalize his energy. Edison's energies appeared inexhaustible, even as he moved into his sixties and seventies. Scientists believe one key to his remarkable stamina was his ability to stay in "flow-

state.” The energy generated from his passionate engagement in his work allowed Edison to thrive on less than 6 hours of sleep per night. On most days he allowed himself a short, refreshing catnap in his office, often sleeping on his roll-top desk or the cot his wife Mina placed in his West Orange, New Jersey laboratory. His laboratory assistants swore he had even more ideas when awakening from his naps than when he walked in the door each morning.

Edison also cultivated a balance between dynamic, highly engaged interaction with others and personal solitude. Although he spent hours supervising, coordinating and exchanging ideas with his team, Edison also consistently sought solitude to incubate his ideas before expanding them through drawings or other Kaleidoscopic Thinking techniques. If he was not sequestered in his second-floor Menlo Park office or “Room 12” in the West Orange lab, he ventured outdoors, particularly enjoying gardening and fishing.

Edison worked very hard throughout his career, and advised that “Hard work and hard thinking” were his keys to success. But, he always remembered the importance of balancing his intensity with regular diversions to refresh, refocus and incubate new ideas – encouraging his staff to do likewise whenever they hit a dead end. In addition to gardening and fishing, Edison also enjoyed reading novels, Shakespearean plays, and poetry which he felt served as “mental vacations.” He also loved attending the theater, listening to classical music, and taking vacation escapes to restorative locales - such as Fort Myers, Florida - where he established a spacious vacation home, research garden, and laboratory.

Edison's ability to seamlessly navigate opposites of emotion represented a critical aspect of his long-term success. Edison's Full-Spectrum Engagement Competency is more important than ever in our increasingly time-starved calendars. Sustaining the passionate drive for excellence requires every individual or every employee to

cultivate the ability to move back-and-forth comfortably between focus and relaxation. Edison taught himself to shift gears “with the least amount of friction.” His profoundly serious concentration on a problem could give way to uproarious laughter at any moment. He used humor to manage his own energy and to release and inspire the creative energies of his staff. Contemporary psychological research validates the notion that navigating extremes with less stress frees the mind to process ideas more efficiently. Modern brain research demonstrates scientifically what Edison knew intuitively: balancing the mind through play, periods of solitude, and stress release enhances the creative process.

Competency #4: Master Mind Collaboration

➤ ***Key Innovation Literacy Elements: Chemistry and style, Diversified skill sets, Collaborative structures, Reward systems, Networking.***

Thomas Edison understood, even as a boy, that he could only achieve his grand dreams with the help of others. In his first job as a newsboy on the Grand Trunk Railway the 13-year old Edison recruited and trained a team of other boys to sell a wide variety of products to passengers. His sub-contractors helped him earn enough to establish his own newspaper and buy materials for his chemistry experiments. Edison intuitively realized the importance of finding people who could support his interests and endeavors.

Edison had an extraordinary ability to know what he needed, then magnetize to himself the precise resources required to meet those needs. When he built his laboratory at Menlo Park in 1876 at the age of 29, he had already assembled the core of a four-man collaboration team that would remain with him for decades. This team assisted Edison in developing the phonograph, the electric

light, the Kinetoscope (precursor to the motion picture camera), and many other major inventions.

As an employer, Edison made a point of assembling teams with diverse backgrounds. He required every prospect to engage in “live problem-solving” techniques to assess whether they would fit the highly creative, highly intense environment of the laboratory. Some laboratory assistants had a liberal arts education, others a technical education, and some had no formal education at all. Edison found value in allowing his staff to “run” with ideas based on their own cognitive style, valuing the diversity of opinions that resulted. Edison’s collaboration incentives and team-building style yielded tremendous employee loyalty as well as marketplace success.

By applying Edison’s secrets for creating high-performance collaboration teams, you will learn how to tap global networks of top talent, build and coordinate teams of diverse individuals and reward them for the speedy and agile achievement of their innovation objectives.

Competency #5: Super-Value Creation

- ***Key Innovation Literacy Elements: Seeing market gaps, Generating insights, Conducting market analysis, Creating magnetic communication, Building dominant brands.***

Over the course of his life, Edison operated as an inventor-manufacturer, an inventor-manager, an inventor-entrepreneur, and an inventor-philosopher. In addition to fluidly switching roles over a career spanning six decades, Edison developed deep knowledge in a broad array of industries. The three industries he pioneered -

telecommunications, entertainment and electrical power – remain 21st century juggernauts.

Although Edison worked collaboratively with others throughout his life, he served as a key *catalyst* in virtually every project he undertook. Edison not only generated innovative ideas himself, he consistently inspired innovative thinking in others. "The Wizard of Menlo Park" drove the process of innovation at every level, overseeing the manufacturing and/or commercialization of his new products, as well as the broad scale marketing of the products themselves. When Edison got involved in a project, he moved markets.

Unlike other inventors of his era, Edison took a 360 degree view of his work. He insisted on first assessing the market potential for each invention, using “field agents” to aid him in thoroughly understanding who was going to purchase his products, for what benefit, at what potential price, and on what occasions. Before placing the Edison brand name on any of his products, he quantified the opportunity each presented. His thorough and insightful preparation enabled him to create an international business base of extraordinary scope and profitability. And, although Edison invented world-changing products that moved markets nationally and internationally, he also recognized that most innovations do not involve reinventing the wheel. He knew that improvements to existing technologies - giving the wheel a new spin - constituted a tremendously productive and lucrative aspect of the innovation process, and he left clear advice for us on how to do this most effectively.

Edison also consistently leveraged his diverse network of contacts to spread his invention gospel, both in the U.S. and Europe. His media releases generated “buzz” that magnetized huge consumer audiences to his products. His live demonstrations attracted

passionate customers worldwide, making his Edison brand unforgettable.

Edison's approach to Super-Value Creation is essential knowledge for anyone seeking to drive innovation forward in our hyper-competitive global marketplace. You will be guided to use Edison's strategies to rally support for innovation projects both internally and externally, across divisions and across geographies. By taking a 360 degree view of the innovation process and aggressively understanding how your consumer will utilize "the invention" at hand, you will be able to lead your innovation teams to breakthrough success.