Foreword

Imagine a world where the heavy machinery of control – born in the smoky factories of the nineteenth century – gives way to a vibrant, living network of human potential. A world where people, not processes, drive progress, and where the rigid hierarchies of traditional management dissolve into fluid, self-organizing systems that pulse with creativity and purpose. This Element is your invitation to step into that world, to witness the dawn of a post-managerial era where freedom, commitment, and adaptability redefine what it means to build thriving organizations. It's a story of liberation, grounded in the science of complexity, fueled by the courage of pioneers, and amplified by the limitless possibilities of digital innovation.

The old paradigm of management, forged by visionaries like George Whistler and Frederick W. Taylor, was a triumph of its time. It brought order to the chaos of sprawling industrial empires, offering predictability that won the trust of financiers and fueled economic growth. But every system carries the seeds of its own obsolescence. The very structures that promised stability – hierarchies, standardized processes, top-down authority – became shackles. They slowed organizations to a crawl in the face of disruptive competitors, choked resource flexibility with bureaucratic inertia, and silenced the creative spark of individuals buried under layers of oversight. These aren't just flaws; they're systemic failures that drain vitality from firms and sap economic potential.

As Thomas Kuhn taught us, when anomalies pile up and the old paradigm can't explain them, a crisis emerges. That crisis is here, and it's shaking the foundations of traditional management to its core. This Element doesn't just diagnose the problem; it lights a path forward. It traces the evolution of management through its phases – control, leadership, technocracy – showing how firms like GE and IBM embodied its principles and reaped its rewards, but also its costs. Then, with the clarity of a Kuhnian lens, it reveals the shift to a new science of organization, one rooted in the principles of complex adaptive systems.

Forget the clockwork precision of Newtonian mechanics; the future belongs to systems that evolve through bottom-up interactions, emergent constraints, and what physicist Adrian Bejan calls flow – the removal of barriers to freedom, one degree at a time. This is a science of life, of adaptation, of possibility. At the heart of this revolution are the pioneers – organizations like W.L. Gore, Semco, Haier, Valve, Buurtzorg, and Morning Star. These aren't just companies; they're experiments in human freedom. Morning Star, where I enjoyed the privilege of contributing, is one part of this story. We operated without bosses, titles, or job descriptions, guided by two simple principles: no one coerces another, and

every individual honors their commitments. Our Colleague Letter of Understanding (CLOU) system – where each person defines their voluntary promises to colleagues – didn't come from a boardroom or a consultant's playbook.

Morning Star's form of self-management is a living example of spontaneous order emerging from myriad interactions like water molecules forming clouds, dissipating and re-forming. This isn't theory; it's reality. A company with a billion dollars in sales that enjoys global industry leadership, Morning Star proved that self-management scales, adapts, and thrives. Picture a dynamic, three-dimensional web of commitments, constantly reshaping itself to meet the needs of customers and colleagues, all without a single command from above. That's the power of self-organization.

But the story doesn't stop there. Technology is pushing the boundaries even further, weaving self-management into the fabric of hyper-personalized business models. Digitization has handed power to customers, who now demand exactly what they want, when they want it. Companies like Handu, an Asian e-commerce innovator, show us the future: a front-end of autonomous, entrepreneurial sites, backed by a digitally automated core and a robust infrastructure. Success drives resources, failure fades away, all guided by what a *Harvard Business Review* case calls "digitally enhanced directed autonomy."

This is self-organization on steroids, blending human ingenuity with AI and data to create firms that don't just react – they anticipate. What makes this Element sing is its rejection of the old paradigm's obsession with formulas and checklists. Instead, it offers a pattern – eight emergent characteristics of the post-managerial age, from dynamic cohesion to the liberation of individual potential. This isn't a recipe; it's a worldview. As Kuhn warned, those wedded to the old ways may struggle to see it, but for those ready to embrace a new language of freedom and flow, the horizon is wide open.

This is about weaving constraints into a tapestry that amplifies outcomes, replacing control with enablement. It's about trusting people to do what's right because they're committed to it, not because they're ordered to. This Element isn't just a reflection; it's a call to arms. It challenges you – leader, thinker, doer – to dismantle the barriers that hold back human potential. Learn from the misfits who dared to experiment. Draw from the science of complexity that shows us how systems evolve. Harness technology not to control, but to empower. The result is a vision of work that's deeply human, where purpose and creativity aren't just allowed but unleashed, where organizations move like living organisms, resilient and ever evolving.

We're at a turning point. The future of business isn't about taming complexity; it's about dancing with it. It's not about imposing order; it's about letting

order emerge from the commitments and creativity of free individuals. This Element is your guide to that dance, your provocation to join the revolution. The post-managerial age is here, and it's time to step into it with courage and conviction. Welcome to a world where freedom works.

Doug Kirkpatrick
Founder, D'Artagnan Advisors

1 Introduction: A Short History of Management

The twentieth century witnessed a long period of sustained effort to apply method to management. It was a scientific era where positivism – the belief that all legitimate knowledge must be derived from empirical observation and rational analysis – was the dominant intellectual framework. Management sought to align itself with the rigor of the natural sciences, influenced by the towering successes of mathematics and physics. Hard and fast laws were to be established for social sciences like economics and management by following the pathways of measurement, mathematical analysis, and experimental validation.

In fact, the precedents for twentieth-century management were laid down in the nineteenth century. Positivism became Europe's dominant philosophy of science, the belief that all mysteries of the universe can be fully unraveled through scientific inquiry. These European positivist proclivities spilled over into the United States, and caught on strongly. The country that so admired innovation and entrepreneurs generated an immense optimism that science would soon solve all business problems and brilliant technocrats would engineer a new and better world. This positive technocracy was the climate in which management science emerged.

The 1841 Western Railroad Accident and George Whistler's Management System

In October 1841, a serious train accident occurred on the Western Railroad, which connected Albany, New York, and Worcester, Massachusetts. A head-on collision resulted in two deaths and many injuries. Worse than the death and injury toll was the severe jolt the accident gave to the national psyche and people's trust in industrialization. The tragic accident was a wake-up call for the railroad industry, which was in its early stages of development in the United States. The crash revealed not only the inherent dangers of rail travel but also significant gaps in the organization and management of railroads.

The collision was due to poor communication and coordination. Consulting engineer George Whistler identified issues of scheduling, authority, and

information flow between personnel, resulting in an environment where mistakes and accidents could easily occur. He judged that the accident underscored the lack of a clear, hierarchical authority structure in railroad management – one that could ensure accountability and the smooth flow of information.

In designing a management solution, Whistler applied his military background and the principles of military organization – specifically, the Prussian military command structure – to the management of the railroad. The Prussian army was known for its emphasis on discipline, clear chains of command, and centralized control, principles that Whistler saw as applicable to the complex and dangerous operations of the railroad.

His design specifically included (1) centralized authority with a clear hierarchy and distinct layers of authority and responsibility; (2) a formal command structure in which train conductors, engineers, and other staff members were given specific roles and responsibilities, with orders flowing from the top down; (3) strict formalized scheduling and timetables; (4) structured reporting of incidents and performance to superiors.

In many ways, we can identify George Whistler and the Prussian military as precursors of the management systems we have inherited. His written report and recommendations were widely circulated through the new class of managers that was just coming into being.

The Foundations of the Management Paradigm

Phase 1: Management for Operational Control

The expression of the principles of Whistler's design for railroad administration took the form of management for operational control of industrial businesses. We can highlight three early prophets who documented this new drive for control.

Frederick Winslow Taylor (1856–1915) was one of the first to employ the positivist view of business – that business managers can engineer maximum efficiency through carefully applied scientific principles – to attempt to establish a discipline of business management, to be studied and applied with methodical precision. In this context, he was "one of the individuals who had the greatest influence on the 20th century" (Alexander, 2020). He aimed at a monopoly for managers of knowledge about work tasks and processes in order to rigidly control them.

His high purpose was "greater national efficiency" (Taylor, 1911), and his method was to dehumanize the work process: "In the past the man has been first; in the future the system must be the first." The remedy for human inefficiency was to be found in the principles of scientific management:

"management is a true science, resting on clearly defined laws, rules and principles as a foundation." He claimed that this science would double the output of each man and each machine, mostly by eliminating the practice of "loafing or soldiering . . . the natural instinct and tendency of men to take it easy."

Taylor's book, *The Principles of Scientific Management*, set out to demolish the old idea that each workman can best regulate his own way of doing the work. The new science of management placed the entire responsibility on management, who were to analyze and standardize work steps and ensure that they were carried out in a predefined sequence at a predefined pace. Workers could be viewed by managers as a kind of machine to be monitored and controlled.

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As he had hoped, Taylor's approach became a standard. It was widely adopted in industry (e.g., by Ford Motor Company in assembly line manufacturing), in World War I military logistics, and in business schools, where courses in scientific management drew heavily on Taylor's work. The Progressive era saw an Efficiency Movement, lauded by leaders such as Andrew Carnegie and John D Rockefeller, and even by President Theodore Roosevelt, whose call for national efficiency was cited as a driver by Taylor in the introduction to *The Principles of Scientific Management*.

Henri Fayol (1841–1925) was a contemporary of Taylor who developed Administrative Management Theory. While Taylor focused on the shop floor and task efficiency, Fayol addressed a different dimension – the overall structure and function of management at the organizational level. He identified five functions of management: planning, organizing, commanding, coordinating, and control (Fayol, 1917). Within the five functions, he found fourteen principles, including Authority and Responsibility, Discipline, Unity of Command, and Subordination (of individual interest to general interest). He also included Esprit de Corps as the last item in the list of fourteen principles! He set out a theory of management based on the fourteen principles and proposed that administrative management could be taught on this basis.

Fayol's management principles led to him being called the father of modern management (Wren, 2002). It has been suggested that Fayol's fourteen

principles metamorphosed into present-day management and the burgeoning administrative formation that exhibits itself all across the globe (Uzuegbu, 2015).

Elton Mayo (1880–1949) was a leader in – some say the founder of – the human relations movement within management theory, specifically applying his attention to the behavior of people in groups. Some of his source material came from The Hawthorne Studies, a series of observations and interviews in the 1920s and 1930s in the context of factory assembly of electrical components. The Hawthorne Studies were interpreted through the lenses of the productivity benefits of social dynamics and team cohesion. Mayo saw work as a profoundly social activity, and identified workers' social and psychological needs that management must attend to. Mayo's integration of psychology into his interpretation of motivational and productivity variables emphasized communication, collaboration, and the management of feelings and emotions to encourage compatible relationships in social groups within companies. This more human-centered, psychology-informed approach, emphasizing the importance of interpersonal relationships and group dynamics, can be viewed as an extension of Taylor's and Fayol's focus on the measurement and organization of behavior. It expanded the management paradigm into psychology and informal networks, and supported concepts such as employee engagement. Nevertheless, the goal remained the increase in efficiency and the elimination of variance in performance compared to benchmarks.

We can group (see Table 1) the Taylor, Fayol, and Mayo views of management into a grouping that represents the first phase of the development of the original management paradigm; management for operational control, with the goal of extracting productivity from the workforce.

Paradigm Element	Key Thinker	Focus	Authority model	Legacy
Scientific Management	Frederick Taylor	Task-level efficiency and control	Manager commands, worker obeys	Organizational engineering
Administrative Management	Henri Fayol	Organizational structure and administration	Hierarchy with formal authority	Classical management functions
Human Relations Management	Elton Mayo	Worker morale and social needs	Control through supportive supervision	Organizational Behavior

Table 1 Phase 1: Management as control.

Phase 2: Elevation of Management to Leadership

As management began to evolve into a profession, practiced as a form of control within a context of hierarchical authority, it was allocated social prestige. The concept of management as leadership emerged (see Table 2).

Mary Parker Follett (1863–1933) was one of the most important early influences in establishing leadership as a management concept. She did not recommend eliminating hierarchy, but saw leadership as a management skill that could be exercised as a lateral process in a traditionally vertically organized company. Importantly, leadership power emanated from authority of expertise in addition to position in a hierarchy. In this context, management power could be less coercive and more facilitating, integrating and collaborative ("power with" rather than "power over"), without losing sight of the purpose of "getting things done" (Peek, 2024). In other words, she saw leadership as another form of power to control others. We may think of the concept of leadership in business as a very contemporary idea in the twenty-first century, but Warren Bennis asserted that "Just about everything written today about leadership and organizations comes from Mary Parker Follett's writings and lectures" (Bennis, 2003).

Alfred Chandler (1918–2007) viewed management through the lens of organizational strategy and corporate structure. He was a business historian who documented the path to scale – he referred to mass production, mass

Paradigm Element	Key thinker	Focus	Authority model	Legacy
Management as Leadership	Mary Parker Follett	Reframing power as facilitation	Relational shared authority	Leadership programs
Management of scale and scope	Alfred Chandler	Strategic coordination of control	Centralized bureaucracy	Classic divisionalized structures
Management of knowledge workers	Peter Drucker	Knowledge as resource, labor as knowledge work	Culture is a management domain	Management as a liberal art

Table 2 Phase 2: Control + leadership.

distribution and mass marketing – and plainly admired the achievement of not only the great industrialists who built the large corporations of the late nineteenth and early twentieth centuries, but equally of the appointed executives who took over from the founding entrepreneurs and administered and managed their burgeoning creations. His book titles included *Strategy and Structure* and *Scale and Scope*, and, most tellingly, *The Visible Hand: The Managerial Revolution in American Business*. Chandler defined management as the complex administrative system required to bring cohesion to industrial scale corporations, via the control that could be exerted through organizational design, including hierarchy, top-down systems, integration achieved through divisionalization and departmentalization, process documentation, and detailed job descriptions. He proposed a managerial revolution (the positivist visible hand replacing Adam Smith's subjectivist invisible hand) and the consolidation of a managerial class. While Chandler did not write much about "how to manage," he did a lot to further elevate the profession of management to the highest levels of aspiration. It was a practice of the largest, and therefore best, corporations, to be admired and emulated.

Peter Drucker (1909–2005) elevated the profession of management to an even higher level of vocation and philosophy. He was dubbed a "management guru" who shaped management practices. One of his biographers elevated him to the position of "champion of management as a serious discipline" (Beatty, 1998). He introduced the term "knowledge worker" (Drucker, 1959), highlighting the intellectual capabilities required for management, and designated management as a "liberal art" (Drucker, 2006), integrating perspectives from philosophy, culture, and sociology. He emphasized the ethical responsibilities of management, as well as execution. This was not a departure from control. His concept of management by objectives established accountability and performance measurement for specific, measurable goals set by the authority levels in the firm. He saw control over resource allocation as crucial for achieving strategic objectives. Cultural alignment was an aspect of "soft" control – Drucker's management cultures were strong in employing norms and shared beliefs to guide employee behavior.

Phase 3: Management by Technocrats

As data and technology became resources to management, the processes and practices of management adopted and integrated them into the scientific method (see Table 3).

Paradigm Element	Key thinker	Focus	Authority model	Legacy
Quality control	W. Edwards Deming	Statistical process control	Data models, continuous monitoring	Quality control studies
Science of Administration	Herbert Simon	Tools, techniques and methods	Scientific business principles	Business administration curricula
Modeling market structure	Michael Porter	Competitive advantage	Strategic management	Centralized strategy planning
Business engineering	Michael Hammer	Process optimization	Process management	Business process reengineering
Change management	John P. Kotter	Business transformation	Managerial elite	Transformation campaigns

Table 3 Phase 3: Technocratic management.

W. Edwards Deming (1900–1993) added another dimension to the managerial control spectrum, that of statistical control. Encapsulated in a theory of Total Quality Management (TQM), Deming's approach was to emphasize a characteristic he called "quality," defined as consistent production without error on a track of continuous improvement measured by systematic data collection and analysis, which together defined a practice known as quality management. He specifically preferred management by numbers to management by objectives (Deming, 1982). Statistical process control became established as a benchmark source for efficiency and productivity assessments.

Herbert Simon (1916–2001) was one of the most influential management scholars. He studied at the University of Chicago, and recalled that, amongst his professional colleagues, "Logical positivism was the dominant, perhaps exclusive religion in this group" (Simon, 1996). Simon's book, *Administrative Behavior,* published in 1945, became the seminal textbook for teaching business administration, now the focus of the MBA. It proposed a fundamentally scientific approach to business management, whereby management scholars can develop tools and proven techniques for managers to apply to engineer better performance and efficiency. He proposed scientific principles of design so that even innovation could be engineered rather than left to the creative whims of entrepreneurs.

Administration was everything for Simon, and his influence remains strong and pervasive throughout the business schools of today, where students learn Simonian administration and the tools, techniques, factors, methods, and processes to implement it. These students are then sent out to replicate these tools and methods in the business firms they join.

Michael Porter (1947–) introduced a greater focus on external market forces extending beyond internal managerial control. Managers should not only aim at controlling internal variables, but also analyze external forces and respond to them, and ideally shape them, in their strategic processes. Competitive strategy and strategic positioning became the new expressions of acute management insight and superior capability. Paralleling Chandler's use of corporate structure as a design tool for management organizations, Porter used industrial structure as an analytical tool for the establishment of what he called competitive advantage, an ideal of insulation, albeit partial and temporary, from the negative impacts of market forces, including competitive actions. Following Porter, managers could, like William F. Buckley in the political arena, stand athwart history yelling "Stop!" Strategic planning became the iconic vocation of MBA graduates.

Michael Hammer (1948–2008) added process control to the management control portfolio via the methods of business process reengineering, which quickly became identified by the acronym BPR. The core of the method was to identify all the processes at work in a company's operations, define the current state of these business processes in step-by-step detail, identify issues at that level of detail, and address them through micro-level re-design (or "change management") tools, which eventually took their own names, such as Lean and Six Sigma. One of the consequences of the reengineering movement was the use of mass layoffs from the workforce to cut costs in inefficient companies, giving this form of management practice a bad name in PR. Nevertheless, BPR and the concept of reengineering remain prominent in the management lexicon, suggesting the imagery of business firms as machines to be tuned and then run at high throughput levels under the control and direction of an engineer cohort.

John P. Kotter (1947–) proposed that leadership was the tool for change management (Kotter, 2012). In this context, management leadership is presented as a process rather than an exceptional attribute or characteristic, and anyone following the eight-step process can claim leadership. These managers establish the vision for change, set direction for action, and organize implementation. "Transformation" was a frequently used term for the results sought, implying great power for the managers who adopted the process.