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Disruption and Strategic Management

What are the theoretical implications of disruption on strategy

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Abstract—There is a lot of interest in Disruption these days even though the concept itself is still under formation. Disruption can be traced back to the idea of disruptive technological change and the late 1990s but has re-emerged in the public eye in current years under guises such as Big Data, Digitalization, Globalization and much more. Early on there was some interest in the effects of disruption on the field of strategy management, but in light of the recent developments of disruption as a concept, perhaps it time to revisit the theoretical implications of disruption on the field of strategic management.

I. INTRODUCTION - DISRUPTION AND STRATEGY SO FAR

To provide some background, disruption is not a new concept. Far from it. And visionary strategy scholars have long since started to take the effects of disruption in to account in the field of strategic management [1]. However, historically disruption has been a concept mainly concerned with technology and technological change [2].

In tracing the origins of disruption, it is hard not to mention Clayton M. Christensen, who introduced the concept of “disruptive technological change” in his seminal “Innovator’s Dilemma” from 1998 [3]. And it is true that the word “disruptive” – as opposed to so-called “sustainable” technological changes, changes that help current market leaders to continue to be so – seems to have been coined Christensen and his school of thought in terms of disruption and innovation. At its outset, the, disruption was mainly concerned with technology and the effects of technological changes for competition, companies and strategy.

For a number of years we have recognized that modern technology basically changes what can be done. As many products become digital, organizations find that such services can be customized and recombined in a number of ways and that new forms of customer values become an option. This, in turn, creates digital convergence of entire industries and/or implosion of other industries, e.g. the music industry. In short, modern Information and communications technology is changing the world in which businesses operate and compete. It also enables new forms of organizations and ways of managing. New forms of network organizations have started to emerge, greatly aided by the World Wide Web and other forms of technology, and we have started to consider open source

innovation and other ways to manage work in modern organizations.

Kurzweil [17] makes an interesting analysis of the future of what we call computers today. The results are staggering. If the current rate of growth in computing power – Moore’s Law – is assumed to continue into the not too distant future, then, in 2040, computers will be able to simulate an entire human brain. This will, in Kurzweil’s view, make computers more intelligent than man and raises some interesting philosophical questions.

It is also paramount to mention the work of Downes & Mui, who, at the same time as Christensen and others tapped into technological change, offered some form of explanation as to why technology and technological change seems to have such a profound impact on competition and strategy [5]. Downes & Mui observed that the basic problem of technological changes is that they often happen much faster than we as people, organizations or societies can adapt, see figure 1 for an illustration.

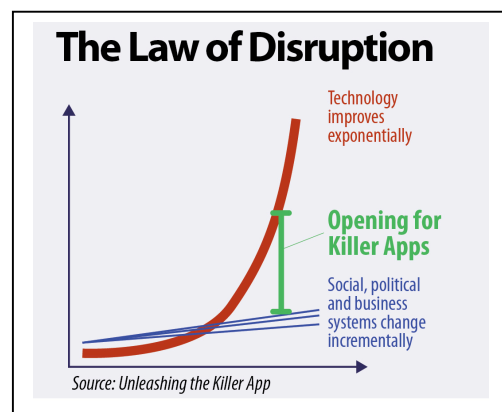


Figure 1: Exponential growth and the law of disruption [5]

The early work on disruption did not go unnoticed in the field of strategic management. For instance, back in 1995, Bettis and Hitt writes in that same issue that:” ... *technology is rapidly altering the nature of competition in the late twentieth century ...*” and, in fact, guest-edit an issue of the Strategic Management Journal entirely devoted to discussing how technology will change the nature of competition and strategy in the years to come. Bettis & Hitt refers to the situation as “the new competitive landscape” [4]. In Table 1, we have assembled some examples of early contribution to the effects of disruption on strategic management

TABLE I. EXAMPLES OF EARLY IMPORTANT CONTRIBUTIONS TO DISRUPTION AND STRATEGY

[7]	Strategic Innovation	Strategic innovation is a means for planning in dynamic and turbulent environments, a middle-road between deliberate planning and emergent learning that requires synergy between thinking and acting. Strategic innovation is an outside-in approach, and it is value-driven, synthetic rather than analytical, heuristic rather than procedural, and it requires lateral thinking
[8]	Streams of innovation	The ability manage disruptive and incremental streams of innovation leads to new markets and the possible rewriting of industry rules
[9]	Strategic innovation	A fundamental reconceptualization of what the business is about, which in turns leads to a dramatically different way of playing the game in the industry, i.e., it is about breaking the rules and thinking of new ways to compete
[10]	Value innovation	A new strategic logic that makes the competition irrelevant by offering fundamentally new and superior value in existing markets and by a quantum leap in buyer value to create new markets
[11]	Strategy innovation	Here strategic innovation is the rethinking of the basis of competition for any company in any industry. Particularly new business models and breaking through traditional boundaries to create new market space.
[12]	Disruptive innovation	Disruptive innovation is seen as the creation of entirely new markets and business models and creation of growth from new ways of competing
[13]	Business model innovation	The fundamental reconceptualization of the business model and the reshaping of existing markets (by breaking the rules and changing the

		nature of competition) to achieve dramatic value improvements for customers and high growth for companies
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In summary of this introductory discussion, disruption is potentially altering the basis for competition for current organizations in several ways. Disruption, this, forces us as researchers of strategic management to change our conceptions of strategy, strategic management and strategy processes to reflect a new managerial landscape created by disruption. The above statement on the changing content of strategy is, indeed, the very background for this paper.

Also, the author finds it important to note that the concept of disruption anno 2017 differs from the same concept Anno 1997. A lot has happened since the 1990s and the seminal contribution to the concept of disruption, so perhaps it should not be too much of a surprise for us that the general public and its representatives, the politicians and civil servants, pay much attention to the idea of disruption and its effects after 20 years of having the concept around?

In this paper, we will this take an in-depth look at what currently drives disruption as a concept and what the implications of this development is for the field of strategic management. This will be done in the form of literature analysis and review.

II WHAT DRIVES DISRUPTION AS A CONCEPT?

The concept of disruption is not a fixed and stable concept. Instead, the concept is still emerging as we speak. This is partly because many people contribute to our understanding of the concept through research, thinking and practice. Also, several external drivers contribute to the continuous evolution of the concept of disruption.

Based on the author’s research over the years, the drivers of the concept of disruption Anno 2017, and, hopefully, beyond, can be described under a number of drivers. In my recent book, I identified and discussed ten such drivers. For this paper, however, the drivers have been clustered into three categories. The categories are:

- A. Digitalization.
- B. Big Data and Industry 4.0.
- C. Individualization

For an up-to-date and more comprehensive view of the new competitive battlefield of strategy Anno 2017 and its importance for the concept of strategy, please consider this author’s most recent book – “Fast Forward Strategy” [14].

II.1 Digitalization as a driver of disruption

Much of what we think that we know about strategy and the forces of competition is, in fact, based on research and contributions that are 20-40 years old and, albeit seminal in nature, born under circumstances that have changed considerably since then. With a contingency view of (strategy)

theory as starting-point, it is important to note that society, in general is in the process of moving from the industrial society to a different form of society known as, for instance, the knowledge society [14]. It is in this light that we need to consider the concept of disruption and the evolution of disruption itself.

The prime driver here is that of digitalization in the form of the emergence of new information and communications technology making it possible for all players in a market to have access to far more information than previously [14]. This information will make it possible to create new digital business models and alter competition at a rate and speed that was inconceivable in the 1980s, thereby changing the basis for competition in existing markets at an unprecedented scale [10]. Digitalization, therefore, drives globalization as traditional political and geographical boundaries lose their importance due to, among other things, digitalization. This, in turn, makes it necessary to deregulate as laws and legislation must yield to the forces of globalization and digitalization much as depicted in the model of disruptive changes shown in figure 1 and in “Unleash The Killer App” [5].

Presently, we are in the middle of another major change in technology [14]. A lot seems to indicate that the next wave of technology will be based on the application of Information and Communication technologies in ways that frees us from limitations of:

- Time – when activities can be done or undertaken.
- Location – where activities can be done or undertaken.
- People – who can undertake or do activities.
- Configuration – with whom activities can be done or undertaken.

II.2 Big Data and Industry 4.0 as drivers of Disruption

Sometimes a good memory and a sense of history can be quite annoying. As an example, this author has been around long enough to have witnessed the early promises from research on robotics and “data mining” and been disappointed many times over the years. The author’s 20-odd year wait for a C3P0-like butler-robot to greet guests at the Drejer-household is a testimonial to the effects of an exponential development of technology – the kind that drives disruption in general [14].

As illustrated in figure 1, an exponential development can be characterized as a rather slow development in the early stages of the overall development. In fact, a mind thinking in linear terms might find the early development of exponential technology somewhat disappointing compared to the “usual” linear development of, say +10% a year. Hence this author’s annoyance of the “slow” emergence of robots for the home, unmanned cars and the so-called “Internet of Things” ... However, an exponential development does not always come across as “slow”. Because the current development of Information and Communications Technology is created by Moore’s Law – a doubling of computing power every 18 months – this development will take off big time at the so-called “Singularity Point”. The latter is a term coined by Ray Kurzweil [14] that has even led to the establishment of the so-

called “Singularity University”. The point of the singularity point is that we are presently right in, or even right after, the singularity point where development speeds and the resulting opportunities/threats emerge much faster than business, social and legal systems can keep up [17]. Unmanned vehicles represent a functioning technology in existence, but the laws necessary to get unmanned cars on our roads is sadly behind the curve along with the necessary social changes. Apparently, a major issue is whether or not humans should be allowed on the roads of the future along with robot drivers ... [14]. Two current trends that the reader might appreciate along these lines are those of Big Data and Industry 4.0.

Based on, among other things, idea of “Data Mining”-reaping the benefits of having enormous amounts of data available for analysis - Big Data is a relatively new term that has surfaced recently to the mainstream media and has become a buzz word for management writers and media alike. In fact, the very term “Big Data” was introduced in the Oxford Dictionary as late as 2013 as:” ... *Extremely large data sets that may be analyzed computationally to reveal patterns, trends, and associations, especially relating to human behavior and interactions* ... “ [18].

However, the mainstream media and others are behind the curve on the development of Big Data [14]. An early study of the literature on Big Data in 2014 showed that the main interest was on the moral/philosophical and technical aspects of Big Data with little or no interest in the implications of Big Data on competition, economy and, ultimately, strategy [19]. Later work has made us a more knowledgeable on what Big Data is, for instance a recent study defines Big Data as characterized by Volume, Velocity, and Variety [20].

The important point about Big Data, however, is that the concept of Big Data has already moved from the conceptual stage to the application stage regarding services and businesses. There is a world of difference from the study [19] in 2014 that revealed little or no concrete thoughts about the application of Big Data in business to an already obsolete map of the existing “Big Data Landscape” from 2016, see figure 2

Figure 2: Big Data Landscape 2016 [21].”

The map in figure 2 – version 3.0 of that year – is a reminder to us that the concept of Big Data is altering the way we think about business and strategy in a major way. And very fast too. As with robotics and unmanned vehicles, Big Data has

already moved into the world of business and strategy faster than the mainstream media (and politicians and the general public) can fathom. Business Models based on Big Data will be an important factor of changing the business world of tomorrow, starting today [20].

Another, not unrelated, trend based on the availability of data, sensor technology, robotics and automation in general, deserves a mention is that of Industry 4.0. As a long-time researcher of the world of manufacturing, which is still an essential part of the business world of 2017, this author has studied the concepts of industry and the development of these driven by Information and Communications Technology, Automation, and New Management Systems, for more than 25 years. Many researchers agree that research in manufacturing can be characterized into different, distinctive, schools of thought – some according to research traditions [22] and others according to contingent situations of management [23].

In accordance with the latter tradition and very much in line with the approach of this paper, Industry 4.0 has been described as the latest version of how manufacturing is perceived at a conceptual level in light of the advances of technology, automation, and management thinking, see figure 3.

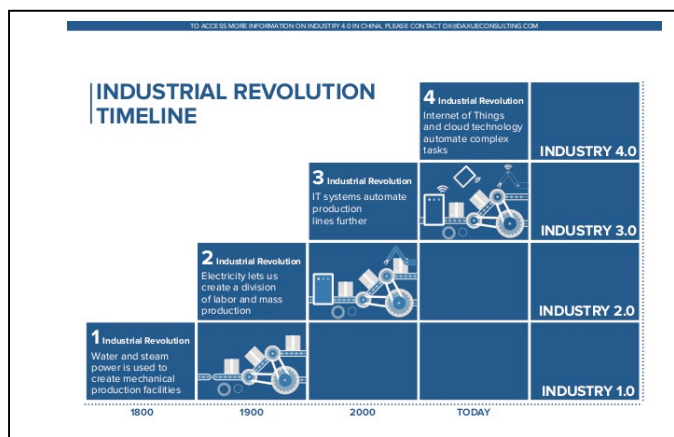


Figure 3: The Concept of Industry 4.0 [24]

The main point of bringing this large area into the current discussion as a mere illustration is to make the reader aware of the fact that even the manufacturing floor – the very place where our products become physical reality – is becoming the victim of the concept of disruption [14]. This will change the world of workers and organizations related to manufacturing all over the world in the years to come as well as those of us who merely consume the products being produced by industry 4.0.

In summary, the derived effects of the exponential development of Information and Technology that is behind the very concept of disruption have some profound implications for the way we live and exist tomorrow. – also as researchers and practitioners of strategic management. Other important

effects, however, are socio-cultural and pertain to the very life we lead.

II.3 Individualization as a driver of Disruption

The continuing evolution of Disruption seems to both help create and is being sustained by several socio-cultural changes among customers and markets [14]. The starting-point for this driver is that of individualization and starts with technology. As more and more services and business models are becoming digitalized, it becomes possible – or even necessary – to tailor services and relations with customers individually [14].

First, the tailoring/individualization being made possible by digitalization leads to the dismantling of the perception of a market as a uniform whole that may need to be divided into a limited number of segment – a perception born of the industrial age. Instead, we are looking at a perception of the market as consisting of (individual) customers each with unique needs and demands [14]. This leads to some of the more interesting modern strategy research, where the needs of customers are the very centre of strategies and business model, consider for instance the work on “Blue Ocean Strategy” [7] or Hamel & Prahalad’s contributions to the strategy field [10].

Second, the author find that philosophers and others have started to discuss a more basic changed in societal form away from the industrial society towards what, for instance, Giddens has labelled a post-modern society [25]. In such a society, in man is more reflecting and free from traditions and customs of old [25]. Obviously, the latter idea draws on earlier works by people such as Toffler [26] and others [27], but it seems as if the ideas of a societal change are currently becoming reality in much the same manner as the disruptive technologies of figure 1, albeit a little slower. However, just as the author has mentioned exponential growth of technology – and been disappointed of the perceived slow growth in the beginning - only to find that when the technologies really take off, it is hard to keep up, perhaps we find that the post-modern society is developing faster than we can imagine?

Notwithstanding the critique of Giddens from people such as Bourdieu [28], it seems as if the disruption is creating changes in society on a grand scale. Consider, for instance, our family patterns. In Denmark, the National Office of Statistics used three categories to denote citizen’s marital status in 1950 – in 2017 the number of categories has grown to 29! [14]. Something is certainly happening, but to label this “individualization” alone is probably a misrepresentation. The emergence of shared economy and services such as Airbnb, Uber and others suggests that we are still willing to part of communities albeit communities of a less stable and more short-lived nature than traditional communities.

The main point, however, is clear: when disruption anno 1997 connects with the market, the effects are enormous. Consider, for example, what streaming services such as Netflix have done to the traditional notion of flow-TV or what Twitter has done to American politics. No pun intended, almost. The effects in the market place are certainly part of the continuing evolution of the concept of disruption.

It is within the context of this development that we must view the emphasis on uniqueness and unique competitive advantage that has flourished recently, seminally exemplified by Tovstiga [29].

II.4 Disruption defined Anno 2017

To this author, it is important to note that the concept of disruption has evolved since its origins. When it originated, the concept was primarily an advancement in theory – a concept that thanks to Clayton M. Christensen [3] help us explain why certain kinds of technological change will topple current market leaders in favor of new ones, whereas other types of technological change tend to sustain current market leaders. When the idea of exponential technological change was born, almost at the same time, a lot of researchers concluded that the idea of competition and, therefore, strategic management needed to be changed in light of disruption and the effects of disruption. Obviously, this was important to the scientific community and to managers and entrepreneurs riding the first wave of what was to come, but hardly noticed by the general public and its representatives, the legislators.

This has since changed. Disruption Anno 2017 does not only urge us to find out new ways to conduct strategic management in theory and practice. Disruption Anno 2017 is a force that forces us to rethink how we define our societies, families and social structures in order to survive in the future. **Disruption anno 2017 is a force that changes society as we know it.**

III STRATEGIC MANAGEMENT AND DISRUPTION

Let us now turn to the effects of First, let us clarify our starting-point regarding the subject of research in this case – that of strategic management divided into content and process. The debates within content and process of strategic management have been going on for many years and in this paper, we will try to outline the effects of the concept of disruption anno 2017 on, respectively, the content and the process of strategic management.

III.1 Content and process of strategic management

Regarding the content of strategic management, the starting-point is that when one visits the different applications of the concept of strategy, ones quickly realize that strategy has become an everyday word that we used as part of our general vocabulary. Today, people can declare to have “a strategy” for buying a house, getting a job, or setting up a date! However, in professional use, strategy is applied to the firm at many levels: a firm as a whole at the corporate level (corporate strategy); to parts of a firm (business strategy and functional strategy), e.g. marketing strategy or R&D strategy; and specific activities within the departments of the firm (operational strategy), such as quality strategy [14]. Therefore, strategy means many different things and the various applications of the notion of strategy have made it somewhat blurred. One must wonder: how are all these different uses and concepts related to each other? And what do all these concepts mean? This author’s starting-point is the definition of strategy offered by Johnson & Scholes:” ... *Strategy is the direction and scope of an*

organization over the long-term: which achieves advantage for the organization through its configuration of resources within a challenging environment, to meet the needs of markets and to fulfill stakeholder expectations ...” [29]. The content of strategic management will be driven by this purpose of strategy.

Regarding the process of strategy, the traditional approach to the strategy process is that of strategic planning, strategic management as the result of deliberate, rational and optimizing actions on the part of managers. As the reader (hopefully) is aware, the idea of strategic planning has attracted much criticism over the past 25 years. For instance, William Starbuck cites a study by Brinyer and Norburn where they found that firm’s profitability correlates only very weakly with the formality of planning. Starbuck’s conclusion is that: “*Planning and strategizing generally make unimportant contributions to profits...*” [28].

Of course, the idea of decisions being made as a result of deliberate, rational, and “economic” action is not the only one in the literature. At least three other ideas exist:

- 1) The idea of decisions controlled by the logic of identity through a system of organizational structures, rules, roles, and habits.
- 2) The idea of decisions strongly influenced by the interactive environments of which the decisions are part.
- 3) The idea that the outcome of a decision is not important for understanding how decisions are made.

Our starting-point is that of decisions influenced by the interactive environment of which the decisions are part. This starting-point has led people such as Quinn to propose the notion of *logical incrementalism* to describe strategy formation. Quinn concludes: “... *My data suggest that when well-managed major organizations make significant changes in strategy, the approaches they use frequently bear little resemblance to the rational, analytical systems so often described in the planning literature...*” [32]. Logical incrementalism denotes successful strategies in practice, a process of the gradual evolution of strategy driven by conscious managerial thought. In other words, rather than major strategic revolutions, managers seemed to formulate and implement strategies in small, incremental, steps. There is a logical step from this stance to the notion of “emergent strategy” as advocated by Richard Lynch [33]. With Lynch, the author sees the strategy process as a process whose final objective is undecided and where elements are developed as the strategy unfolds over time [33], [14].

III.2 Effects of disruption on the content of strategy

Disruption anno 2017 will have profound effects on the content of modern strategic management. Digitalization has already altered competition in many industries, for instance by making an established business model, a brand, a current position less important than ever before – to paraphrase Gary Hamel [35]. Already, we are rethinking old models belonging to the industrial society to make them fit for the next competitive landscape.

Consider, for instance, one of the most influential models of competition and competitive forces within an industry, Porter's Five Forces Model of Competitive Forces [15]. The Five Forces model remains part of the standard toolbox of the strategic manager to this day. However, the model was created based on thinking related to the economic and strategic situation of the 1980s – a situation characterized by serious competition, predictable cyclical economic changes and relatively stable organizational structures [14]. Since the 1980's, however, much has changed in the world. The development of an important internet economy over the past couple of decades, for instance, is one of the factors that has fundamentally changed economic and competitive conditions since then. This has led many to claim that the five forces model can no longer be used to explain or analyze dynamic changes in environmental changes for modern organisations [14]. For instance, Larry Downes – co-author of one of the seminal works related to disruption “Unleash the Killer App” [5] – has published another important work for our purposes in this paper, “Beyond Porter” [16]. In this paper, Downes states that the basic assumptions (regarding environment and economic conditions) behind the five forces model are no longer valid. Based on this claim, Downes identifies three new forces of a state-of-the-art analysis of competition for modern organizations: digitalization, globalization, and deregulation [16].

As an example of a trend, there is no doubt that we will need to revisit tired old strategy models in order to make said models fit for a competitive landscape driven by disruption. And we may even need to invent new models rather than continue to patch up old ones. Downes 'paper on the five forces model is from 2001, but it seems as if very little has done to slow down or counter the developments outlined in the paper. Instead, socio-cultural development related to globalization such as the importance of sustainability, circular economy and corporate social responsibility are currents trends based on the forces outlined above [14]. It is, therefore, in the more philosophical implications of disruption anno 2017 that will derive the largest effects on strategic management in the years to come.

Paradoxically, the emergence of robots and Artificial Intelligence from disruption 2017 will force us to rethink our societies and, hence, the areas in which strategic management will be played. And probably more such the political movements and intellectual leadership. This is due to the fact that technology develops so much faster than our ability to grasp the effects thereof. Consider a phrase from an old song as an illustration [36]:

In the common age of automation, where people might
Eventually work ten or twenty hours a week, man for
The first time will be forced to confront himself with
The true spiritual problems of living

Perhaps some strategy scholars listen to old pop-music or vice versa, because it is possible to find management thinkers who have come to grasp what the technological side to disruption will mean for strategic management.

In “Living Strategy” [37], Lynda Gratton argues that the traditional organization, i.e. the hierarchical bureaucracy, is designed for machines and not for human beings. Remembering Henry Ford's complaint “All I want is a pair of hands, why did there have to be a brain involved as well?”, this is a valid point. Drejer & Printz [38] have shown that industry age organizations are focused on the technologies of production rather than the needs for people leading to alienation, de-motivation and low performance. Lynda Gratton goes beyond this by asking, why is it that human beings differ from machines? The answer is [37]:

- We exist in time. Humans depend on their history and tradition. The way humans react follows path-dependent and often predictable patterns – for instance, we are motivated by things we have succeed in before, which goes to illustrate why organizational cultures are so hard to change.
- We seek meaning in life. At least in the Western cultures of the world, we do not passively accept what life has to offer. We want a meaningful existence and if this is not a given, then we will strive to create meaning of life.
- We have a soul. Human beings are not interchangeable components of a machine. The relative predictability of our actions by tradition notwithstanding, we know that the positive or negative synergistic effects created between human beings are much stronger and difficult to explain than effects between technologies.

This starting-point enables Lynda Gratton to propose an approach to strategic management that contains visionary thinking, motivation, learning, emotional intelligence, commitment and relationship management.

It is also necessary to mention another contribution to the field of strategic management that is related to the context and content of strategic management. In “The 100 Year Life” [39], Gratton & Scott outlines (some of) the implications of the prolonged life cycles that humans face as an effect of technological and societal changes driven by disruption. In short, living much longer than the current life expectancy will change the relationship, humans have with their places of work, their careers, their education, and their perception of work. This again drives the content of strategic management towards a set of softer elements related to meaning, motivation and relationships. In summary, as a strong supplement to rethinking the strategy models of the industrial age to reflect competition in the next age, we need to take into account in strategic management man's search and need for meaning. Perhaps, we need to rethink the very relationship between our organisations and their stakeholders? This is by far the most important effect of disruption anno 2017 on strategic management.

III.3 Effects of disruption on the process of strategy

Disruption anno 2017 will also have profound effects on the process of modern strategic management. Once again, strategic management theory stand on the shoulders of giants from other fields, amongst others systems theory, complexity theory and theories of organisational change. This starts within systems theory, where early scholars such as C. West Churchman distinguished between “simple problems” and “wicked problems” [40], the latter being complex problems with social elements and no easy solutions. It seems that disruption anno 2017 will dramatically increase the number and complexity of wicked problems facing strategic managers of today [14].

From a pragmatic starting-point, many studies have shown a notable lack of success in implementing even the best laid strategic plans. In response an area of literature emerged in the beginning of this century, i.e, that of change management (e.g, [40], [41]) and sometimes even strategic change management [42]. Going back to the initial contributions on Systems theory and organizational Development by Kurt Levin, The Tavistock Institute and many others [27], this tradition is less normative in its approach and takes empirical change processes as its starting-point and, therefore, yield more complex and difficult-to-implement theories and methods. In Europe, today, the most important person is John Hayes [43]. His work rivals that of John Kotter in its understanding of organizational and personal change. More recently, Otto Scharmer and his followers has advocated a very human and learning centered approach to organisational change [45].

Others have taken the notion of strategic change management to another level, most notably Kathleen Eisenhardt and her followers [46]. So, how much can a CEO really expect to be affected by his or her own actions if the organizational culture is so strong that it can block almost any strategy? That is, indeed, a very good question, and one that has puzzled many including Kathleen Eisenhardt and her colleague Martin [46]. The main result of Eisenhardt & Martin’s work is that top managers only have a few ways to affect their organizations if they want to succeed with change.

The first factor that a CEO can affect is that of vision. While John Kotter emphasizes the burning platform of the change process, Eisenhardt & Martin focus solely on the vision for the change process and its motivational effect on employees. Furthermore, it is the privilege of top management to prioritize the efforts of the organization by appointing focal areas of concern for the next strategy period. This may be in the form of themes or (strategic) projects as they are often called today. Having selected a few core projects of strategic importance, top managers can and should dedicate the necessary resources to these projects – another aspect of prioritizing which is an essential part of strategic management, in our view. Furthermore, top management can and should select the right key people to participate in the strategic projects and support

these visibly. Finally, top management holds another key to a successful change effort: reward and punishment. Too often reward systems are kept out of major change efforts and not utilized to reward the new behaviours that the strategy calls for – or punish the opposite. It is a key point of this research that these five factors are all that a CEO can affect and that everything else he or she tries will fail or, at worst, be counterproductive for the change process. So actually, top management can only do so much in organizational change – the real and deep change is created by each and every employee of the organization. This corresponds nicely the conclusions of the huge body of literature on organizational learning and organizational development that has amassed over the years only to be forgotten again in the strategic management field.

A powerful variation on that same theme is outlined in Peter Killing & Thomas Malnight’s book “Must Win Battles: how to win them again and again” [47]. As such, must-win Battles is a powerful metaphor for an approach to strategic change management based on the same tradition as Eisenhardt & Martin, where the importance of ownership of the strategy on the part of employees of the organization is emphasized strongly. Furthermore, must-win battles strongly underline the importance of focus! An organization may only have 3-5 must-win battles at any given point in time and needs to focus its resources and key personnel on the must-win battles of the current strategy.

This leads us to the re-emergence of emergence. Since Mintzberg’s introduction of the concept, a lot of work has gone into formulated emergent strategy processes as a coherent theory [14]. This work is based on complexity theory and systems theory and goes beyond the usual distinction between leadership and management with the latter denoting rational and analytical management processes. As mentioned previously, the distinction between so-called closed problems, i.e. easy to solve through analysis, and open problems, i.e. impossible to solve through analytical processes, has been around since the early work on systems theory in the 1950s and 1960. The implication for management has become the now well-known distinction between management (analysis and planning) and leadership (vision and creativity) that has been advocated by a number of people such as John Kotter. However, with complexity science, representatives of the field of emergent strategy such as Ralph Stacey takes this discussion several steps further [48]. According to Stacey and his followers [49] complexity science holds the potential for a major impact on the theory and practice of (strategic) management [50]. New methods and theories such as Open Space Technology, Appreciative Inquiry and others are based on the assumption that complex social systems, such as organizations, follow certain generic principles and resemble other complex systems such as the body, colonies of ants, swarms of fish or birds, etc. The key feature of emergent strategy is that scholars attempts to make existing theories of management, including modern ones based on systems theory

and power theory, work under increasingly complex situations by refining those theories accordingly [50], [14]. There is little doubt that the concept of disruption anno 2017 will be a major driver for the further development of emergent strategy as the main implication of disruption within the field of strategic management.

IV CONCLUSIONS

The author hopes that this paper will contribute to the general body of knowledge as both a discussion of the effects of disruption and as an inspiration to find and present other effects of disruption and changes to how strategic management is to be researched in the future.

First, disruption as a concept is clearly in a state of flux. From a means to explain changes in industry leadership as a result of underlying technological changes, disruption is currently evolving as a concept that has implications way beyond the world of technology. While we have long since recognized that technological changes may have profound effects on individual, organizations and industries [49], the current rate of disruptive technological change reminds us that even our societies are in the process of being disrupted. All of this act to change the competitive conditions under which to conduct business in the future. Therefore, the very task of strategic management as a practical and theoretical field is in a process of changing. In the future, we need theory of strategic management that is much better suited to react to sudden and large changes in the conditions of a business, is much better at involving meaning for humans in the strategy process and is able to provide top managers with greater ability to act and react with speed. This does not, however, mean that managers or scholars should give up on the idea of proactive strategic action! Even in the age of disruption may clever executive act to create their own future, said executives only need to remember that any advantage of said future will be short-lived and highly dependent on the people along for the ride!

In the age of disruption, this author predicts that the age of organizations that lived on for generations is over. Everything – competitive advantage, customer relationships, employment, juridical structure, and so on – will be temporary. It will be great!

Finally, on the process and content of strategic management as discussed in this paper. We have known about the principles of meaning in strategy, of emergent strategy, and of disruption for quite some time, perhaps it is time to put both conceptions to use so that we may learn from practicing rather than preaching?

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