

THE DOUBLE GAME OF DIGITAL STRATEGY

By Philipp Gerbert, Christoph Gauger, and Sebastian Steinhäuser

This is the first in a series of articles on setting and executing digital strategies with speed, foresight, and savvy.

DIGITAL IS OFTEN COMPARED to electricity. Both are pervasive, and each has been a fuel for broad-based economic transformation. But the comparison is misleading.

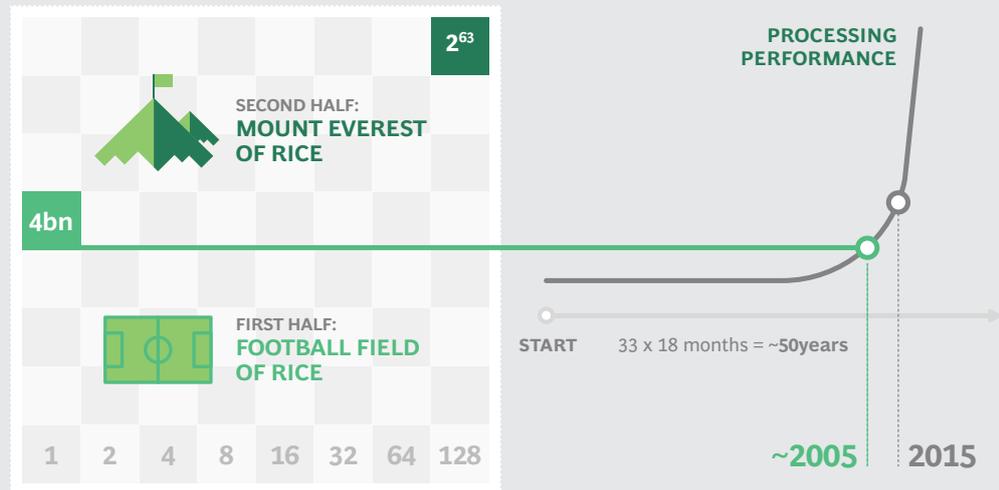
Today's production, distribution, and uses of electricity, in spite of significant improvements in efficiency, would be familiar to Tesla and Westinghouse. By contrast, the possibilities and economics of digital—driven by sustained exponential trends like Moore's law for processing power and its various derivatives for bandwidth, storage, and more—are constantly changing, enabling new moves and sparking the transformation of industries.

As a result, digital strategies need to continually adapt to and seize new opportunities. Executives have to play a "double game": making the most out of today's contests while positioning themselves to win in tomorrow's.

Even sharp minds can fail to grasp the power of sustained exponential forces. The wunderkind-turned-futurist Ray Kurzweil has famously used the "second half of the chessboard" as an illustrative metaphor. The expression evokes an ancient fable in which the ruler of India agreed to reward the inventor of chess with rice. One grain on the first square of the chessboard, two on the second, with each successive square getting twice the number of grains as the previous square until all 64 squares were filled. (See Exhibit 1.)

On the first half of the board, the reward was large but manageable. By the thirty-second square, the cumulative compensation amounted to about 4 billion grains, or about a football field covered with rice. The ruler ran into trouble in the second half, when growth failed to diminish. The pile kept doubling, square after square, quickly surpassing the ruler's resources and eventually reaching a mound the size of Mount Everest—or more than the cumulative rice production on earth.

EXHIBIT 1 | The Second Half of the Chessboard Has Arrived



Sources: Ray Kurzweil; BCG analysis.

Digital has entered the second half of the chessboard, and its growth shows no signs of abating. The technology, media, and telecommunications sectors are already approaching the base camp of Everest, while financial services, health care, and consumer goods are still on the early slopes. Energy, industrial goods, construction, and public services are arguably just beyond the football field, about to start their steepening ascent. And everyone's future remains shrouded in clouds.

Moreover, industries are increasingly colliding as digital moves beyond screens and software to enter the world of things and businesses. We will use the fast-changing landscape of mobility and transportation to illustrate how automotive, technology, and start-up companies are both complementing and competing with one another. Their strategies suggest new ways to think about mapping the landscape, deciding where to play, and embarking on the journey of digital transformation.

Mapping the Landscape

Preparing for the double game is inherently challenging but essential. As the great French scientist Louis Pasteur said, "Fortune favors the prepared mind." The best companies ask three questions to understand and map the strategic landscape for today's and tomorrow's digital plays.

What can I forecast? To prepare and open the mind, analyze the breadth of digital trends, their expected time frames, and potential tipping points as what is possible evolves. Then be very explicit in stating your most likely scenarios and conclusions. Only with this level of clarity can you be productively surprised by new developments—and prepared to act on them with decisive speed. It's important to have a view on both the "usual suspects" and latent discontinuities.

Automotive companies have been contemplating a future with autonomous vehicles for decades. But their business focus has been on efficiency, global expansion, and electric cars—as well as assisted driving and connected cars in the digital realm. So they were surprised by the rapid emergence of an autonomous-vehicle prototype by an outsider, Google, and the broad embrace of the concept that it generated.

The industry is suddenly awash in debate about when autonomous vehicles will reach a tipping point. Will the next decade bring innovative fully autonomous vehicles to consumers? Or will traditional vehicles simply add an increasing number of autonomous features in an evolutionary and potentially slower process? Whatever the outcome, autonomous vehicles are now on the radar of automakers, which have incorpo-

rated them into their forecasting efforts and strategic plans.

Where can I be disrupted? A chat between an auto executive and an executive building an autonomous vehicle is revealing:

Auto executive: “Why no steering wheel?”

Autonomous-vehicle executive: “Because it’s about *mobility services*, not *driving*.”

It’s essential to follow the lead of the auto executive above and explore the attacker’s perspective. Venture capitalists, like the corporate raiders of the past, search for vulnerable profit pools. So should all successful companies. The best ones probe competitive moves from adjacent industries that could endanger their current business—and examine how their own assets and capabilities could be disruptive in other sectors.

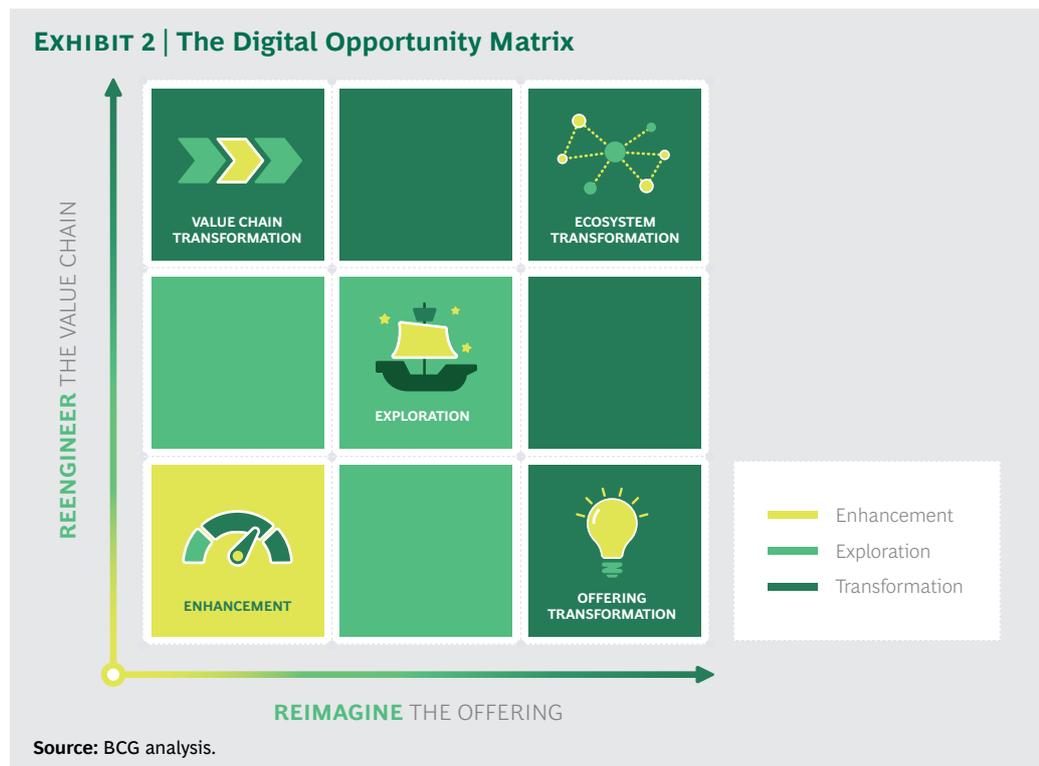
What can I shape and where do I need to adapt? Brands, distribution networks, supplier relationships, strong capabilities, and superior cost positions do not disappear in a digital world. The trick is to figure out when you can draw on existing or latent

strengths to shape a market and when you need to acquire new capabilities or adapt to ambient forces. A word of caution: our research shows that CEOs often overestimate their ability to predict and shape their environment, and consequently lead their companies astray.¹

You might have to make unconventional plays in order to shape the market. Consider the decision by fierce competitors Audi, BMW, and Daimler to jointly buy Nokia’s HERE mapping business. Mapping and geolocation-based auto services and to the ultimate success of autonomous vehicles. Through that acquisition, the automakers mitigated the strategic risk of being dependent on Google’s or Apple’s cartography platform.

Deciding Where to Play

Charting the current and future playing fields is necessary but insufficient. It’s also essential to frame, explore, and prioritize strategic choices. An intuitive tool is BCG’s digital opportunity matrix, which comprises two axes: *reengineer the value chain* and *reimagine the offering*. (See Exhibit 2.)





Reengineer the value chain. It would be negligent to forgo the many opportunities that digital provides to optimize company processes. To some, this may sound like an old story, dating back to the reengineering mantra of the 1990s. But things have changed. State-of-the-art IT—although not necessarily your IT department—has become flexible, intuitive, powerful, and even accessible to general managers.

Digital reengineering can vary in complexity and impact, ranging from a single value-chain step to processes that cross multiple corporate functions and even the organization’s boundaries. Data analytics that improve sales effectiveness across physical, mobile, and online channels can promote significant value creation. Another obvious opportunity is the development of entirely automated order-to-delivery processes. In the back office, HR and finance processes typically offer opportunities for immediate optimization.

Consider how Tesla has reconfigured automotive distribution with single-car showrooms, all-online sales, and home delivery of vehicles. But it’s not just a story of newcomers. Incumbents are also reaping the benefits of digital. A major European automotive supplier is rapidly achieving a step-change improvement in productivity by embracing a digital transformation of its production processes, ranging from quick wins such as automated material handling to investments in collaborative robotics. New digital tools that facilitate fast prototyping enabled the company to pilot the most promising concepts in less than three months.



Reimagine the offering. Whereas reengineering is largely a linear process in search of efficiency and effectiveness, reimagining is more open ended, requiring creativity and vision. Digital also creates ample opportunities for novel products and services. These innovations typically exploit new data and powerful analytics.

In the mobility industry, examples of re-imagination abound. Condition monitoring

based on car and train sensor data, for instance, offers the opportunity to enhance existing maintenance. So do simple services, such as crowdsourced real-time traffic information provided by Waze or Inrix.

Other new offerings are spurring more far-reaching industry changes. Uber, for example, is seeding and shaping the sharing economy for the transport of people (and soon goods), blurring the difference between contractors and employees. None of these developments are fundamentally transforming the core offering of traditional automakers, but they do start affecting demand and supply. Peripheral industries, however, are being transformed by these developments. The new- and used-car-dealer markets are under threat from all-digital pricing platforms such as TrueCar and all-inclusive online consignment services, such as Beepi or Shift.

Playing the Double Game

Striving to sustain a competitive advantage demands a perpetual process of transformation as today’s game quickly morphs into tomorrow’s. The ongoing cycle has three stages that are represented along the diagonal in the digital opportunity matrix.



Enhancement. Strategically, enhancement is about extrapolating from your current position. Start with where you can create immediate value. While this is the least radical stage of digital opportunities, it can improve the organization’s digital skills and provide tremendous and immediate value creation that can fund the broader digital journey. Examples include predictive maintenance, streamlined digital links to suppliers and customers, and recommendation engines.



Exploration. Exploration requires investigating offerings adjacent to the current business or pursuing larger adjustments of the value chain. Starting down the path to full autonomy by adding advanced assisted-driving features to a car and reshaping distribution on the basis of innovative geoanalytics capabili-

ties are examples. Exploratory digital strategies become C-suite topics. Companies need to invest significant resources in digital businesses and closely track their performance. In many cases, companies can develop a portfolio of venture investments to establish beachheads in promising areas.



Transformation. Transformation is an all-encompassing strategic move that has the greatest potential to generate competitive advantage, often over several years, but also the greatest risk. From a strategic standpoint, executives need to envision a target state five to ten years out and then “retropolate” from that vision back to the present. Transformative change by its nature becomes *the* top CEO priority. Transformation requires major investments and often the development of new partner ecosystems.

In working with clients, we have found that a firm grasp of these stages helps executives weigh short-term versus long-term approaches and balance reengineering and reimagining. In setting priorities, three pieces of advice are in order.

Ultimately, strategy is about choice. You cannot do everything. And you cannot even do all the things you should do simultaneously. You have to make conscious choices to prioritize and stage initiatives. In fast-paced digital markets that your company lacks the ability to shape, for instance, the best strategy may be to focus on complements—providing the shovels for the digital gold rush—to take advantage of the exponential decrease in digital costs.

Conventional wisdom can be generally right but specifically wrong. The digital era has produced several conventional wisdoms, such as “winner takes all” and “data is the oil of the twenty-first century.” In a fast-moving environment, however, even winners stay vulnerable. Remember the warning about the inertia of incumbents: “God created the world in seven days because he did not have an installed base.” Likewise, data is the opposite of oil in that one is ancient and scarce and the other is

new and growing exponentially. In fact, the most valuable data doesn’t rest in dusty databases but has yet to be created. Data is a classic example of one of tomorrow’s highly dynamic multilevel games.

Practice playing the double game. Sustained success requires actively managing a portfolio of initiatives across time. A useful analogy might be the famous Nash equilibrium in game theory: The optimal strategy is always to focus on each action for a part of your time. Your strengths and weaknesses will determine their relative weight.

Daimler, for example, is enhancing both the connected-car and autonomous-driving features of its vehicles. It is also exploring car sharing with car2go and has acquired mytaxi, an innovative ride-matching platform in the German cab market. Through its Moovel platform—which integrates car2go and mytaxi into a broader route-planning ecosystem—it is striving to shape intermodal travel. And, of course, Daimler is working on strategies for fully autonomous premium vehicles.

Executives can use a simple checklist to assess and shape their strategies for confronting second-half-of-the-chessboard challenges. (See the sidebar, “A Checklist for Action.”)

The strain posed by the accelerating pace of digital transformation is unprecedented. Not even digital natives, born in the early foothills, are prepared for further ascent. “After the game is before the game,” as they say in soccer. In other words, you need to focus on winning the next game even as you are finishing the current contest. Conversely, you have a chance to recover even if you lose one round. Just look at Apple and IBM.

Next up: how to execute a coherent set of actions in order to play the double game.

NOTE

1. See “Your Strategy Needs a Strategy,” BCG article, October 2012.

A CHECKLIST FOR ACTION

The following questions may help you prepare to play the double game

Have we explicitly mapped the digital landscape?

- What will our industry look like after ten squares—a performance factor of about 1,000?
- What are the anchoring beliefs for the future upon which we can build our forecast scenarios?
- Where would we attack our business? What source of value creation is most vulnerable?
- Where do we go against the grain in shaping digital strategies? Are we overestimating our abilities?

Do we know how to play in the opportunity matrix, along each axis and the diagonal?

- Where is resistance—the hidebound “car dealer” in the organization—to reengineering the value chain?
- What immediate steps can we take to address our pain points and enhance processes?
- How would we reimagine our products without legacy?
- What opportunities demand exploration? Which ones could become transformative?

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