



# Digital Reinvention in action

*What to do and how to make it happen*

## Executive Report

Strategy

### How IBM can help

Digital Reinvention™ requires organizations from all industries to review their business, operations, and technology strategy while making a cultural change across the C-suite to embrace experimentation and iteration. IBM Global Business Services provides business transformation consulting at the forefront of the cognitive era. We can guide you in creating a holistic digital and cognitive strategy for your organization. For more information, visit: [ibm.com/gbs](http://ibm.com/gbs).

## Transcending disruption

Digital technologies have altered how people and businesses interact. Digital forces have created unprecedented levels of industry dislocation and are fundamentally changing business economics. To succeed in this disruptive environment, organizations will need to offer compelling new experiences, establish new focus, build new expertise and devise new ways of working. Business leaders will face a stark choice: Either digitally reinvent their enterprises, or watch as their businesses decompose around them. Successful Digital Reinvention will involve a fundamental reimagining of how an organization operates and how it engages with its environment.

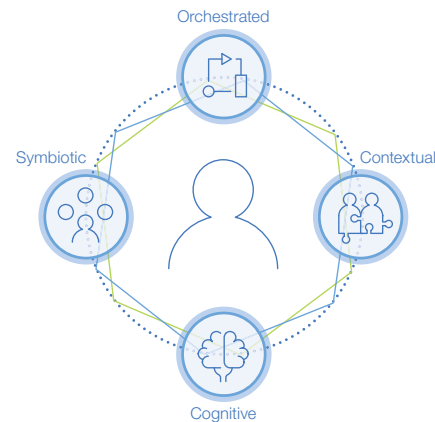
## Executive summary

In 2013, the IBM Institute for Business Value introduced the concept of Digital Reinvention in a study of the same name.<sup>1</sup> The study highlighted a profound economic shift over recent decades. Markets have evolved from organizational centrality, in which manufacturers and service providers largely define what to produce and market to customers; through individual centrality, in which empowered consumers demand insight driven, customized experiences; and into a radically different economic environment today, which the study defined as the everyone-to-everyone (E2E) economy (see Figure 1).

The E2E economy has four distinct characteristics, which have only grown in importance since the original study was published. E2E is *orchestrated*, and based on business ecosystems that which are at once collaborative and seamless. Orchestration reflects

**Figure 1**

*The four distinct characteristics of the E2E economy*



Source: "Digital Reinvention: Preparing for a very different tomorrow." IBM Institute for Business Value. 2013.



**60% of global CEOs** are expecting **more competition** from outside their industry<sup>2</sup>



**81% of global CEOs** want to use technology to **develop stronger customer relationships**<sup>3</sup>



**54% of global executives** believe that customer **buying behavior is shifting** from products and services to experiences<sup>4</sup>

coordination, arrangement and management of complex environments. In the context of an ecosystem, orchestration refers to formal or informal coordination of interactions or collaborations.<sup>5</sup> For example, Kaiser Permanente, the U.S.-based integrated managed care consortium, orchestrates insurance, hospitals and physicians to provide integrated healthcare services for its members.<sup>6</sup>

The E2E economy is *contextual*, meaning that customer and partner experiences are calibrated and relevant to their specific actions and needs. Mobile technologies combined with ubiquitous connectivity fuel contextual capabilities. For example, Monsanto, the US-based global agrochemical company, is making major investments in mobile-enabled big data analytics. Through its acquisition of Climate Corporation, Monsanto offers FieldView, a smartphone app that maps soil and climate data to a 10 by 10-meter resolution. The app provides real-time temperature, weather and soil moisture information. When users enter data about which types of seeds they've planted, the app provides recommendations about when to harvest and what yield to expect.<sup>7</sup>

E2E is *symbiotic*, where everyone and everything, including customers and businesses, are mutually interdependent. Customers and other partners engage in co-design, co-creation, co-production, co-marketing, co-distribution and co-funding. For example, Shoes of Prey is an online retailer that has created a symbiotic model in which customers design their own shoes and define their shopping experience.<sup>8</sup>

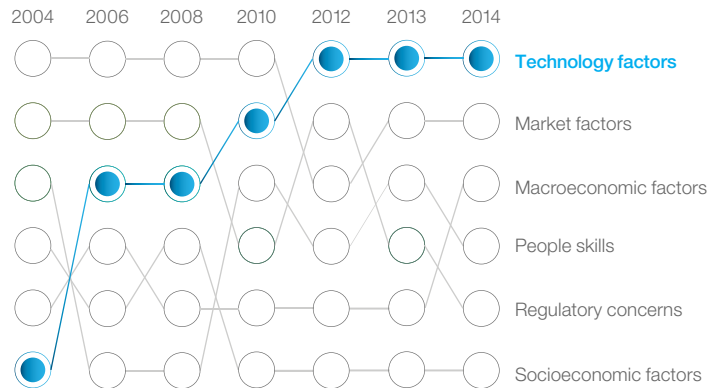
And the E2E economy is *cognitive*, characterized by data-enabled self-supported learning and predictive capabilities. For example, RIMAC Seguros, the largest provider of insurance in Peru, is using cognitive computing to transform claims processing for health insurance. When a claim is made, IBM Watson technologies will scan thousands of policy documents, instantaneously highlighting content relevant to the decision at hand.<sup>9</sup>

## Technological disruption

Relentless technological innovation is conspiring to impact industries across multiple fronts. For years now, global CEOs have recognized that technology, more than any other single force, is affecting their organizations (see Figure 2).

**Figure 2**

*How various factors have affected businesses over several years*



Source: "Redefining competition: Insights from the Global C-suite Study - The CEO perspective." IBM Institute for Business Value. 2016.

Rapid technological change is fundamentally altering traditional business economics. Traditional value chains are fragmenting as technology decomposes industry structures and processes into ever-smaller slices. Industries are converging as new competitors begin to compete within specific functions across industries. New types of business environments – business ecosystems – have emerged and been displacing traditional industry paradigms underpinning formation of new environments that can support seamless, sophisticated customer experiences (see Figure 3).

**Figure 3**

*Industry disruption: Value chains are fragmenting, traditional industries are converging and new ecosystems are emerging*



Source: “Global ecosystem survey.” IBM Institute for Business Value. 2016 (unpublished data); “Redefining Boundaries: Insights from the Global C-suite Study.” IBM Institute for Business Value. 2015.

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At the same time, new technologies are expanding customer influence. A new generation of technology savvy customers demand more sophisticated, tailored experiences. For example, according to a recent global survey of 2,151 global executives focusing on emerging business ecosystems, 54 percent of global executives believe customer buying behavior is shifting from a products- and services-based to an experience-based approach.<sup>10</sup> Seventy-one percent of global CEOs are now intent on treating customers as individuals rather than segments, a 29 percent growth in only two years.<sup>11</sup> And 81 percent of global CEOs say they want to use technology to develop stronger customer relationships.<sup>12</sup>

Polyvore, an online retailer, is further disrupting shopping by creating personalized online boutiques. Polyvore's community of stylists curate images from the web to make customized collages for consumers to better inform and support buying decisions. Consumers can experience products from multiple stores brought together in one convenient place based on predefined themes or philosophies.<sup>13</sup>

The result is a profound change in the economics, competitive environment and valuation of traditional businesses. Uber has a market valuation almost 10 times greater than long established player Hertz.<sup>14</sup> Airbnb has a greater market valuation than Hilton Hotels and Resorts.<sup>15</sup> China-based WeChat's market valuation is more than twice that of China's largest fixed-line company, China Telecom.<sup>16</sup> And Amazon is valued more highly than Walmart.<sup>17</sup>

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### **Convoy looks to disrupt the USD 700 billion trucking industry**

Convoy, a Seattle based start-up, has developed an Uber-like app interface to give individual truckers a more efficient way to connect with individuals and businesses that want to ship goods. By matching truck drivers with clients directly, Convoy disintermediates traditional brokers. The company and other entrants such as Los Angeles-based Cargomatic intend to reduce average transportation prices and delivery times while increasing average loads and trucker income.<sup>18</sup>

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## **Digitization to Digital Reinvention**

To compete and thrive in the face of disruption, organizations need to embrace Digital Reinvention. Over the past two decades, businesses have been working through a digital maturation. As digital technologies emerged, companies progressively digitized processes and functions as they transitioned from analog to digital. The rise of Internet commerce is a case in point. Online shopping began in the mid-1990s as a simple process for click-and-brick businesses or Internet pure plays, and only grew more sophisticated over time.

In the mid-2000s, as digital technologies became more sophisticated, organizations began to integrate digitalization across functions. This phase in digital evolution aligned closely with the emergence of the individual-centered economy, in which companies coordinated entire areas of digitized business processes to better integrate customer experiences. Single view of the customer and omnichannel initiatives reflect a digital transformation of organizations.

Digital Reinvention goes much further. Combining multiple technologies, including cloud, cognitive, mobile and the Internet of Things (IoT), Digital Reinvention rethinks customer and partner relationships from a need-, use- or aspiration-first perspective. Digital Reinvention helps organizations create unique, compelling experiences for their customers, partners, employees and other stakeholders. These benefits arise regardless of whether enablement or fulfillment of the experience involves direct provision of products or services, or orchestration of products or services from partner organizations by way of a business ecosystem. The most successful digitally reinvented businesses establish a platform of engagement for their customers, acting as enabler, conduit and partner (see Figure 4).



**Figure 4**  
*The digital evolution of banking*



Source: IBM Institute for Business Value analysis.

For traditional organizations, Digital Reinvention involves a fundamental ground-up reinvention of strategy, operations and technology. Strategically, digitally reinvented businesses maintain an overarching focus on experience rather than production. They embrace technological change and disruption, and conceive their organization within the context of an overall business ecosystem.

Operationally, digitally reinvented businesses commit to continuous calibration and improvement. They foster cultures of everyday innovation among individuals and across the ecosystem, and they work to seamlessly interchange between the physical and digital.

### **Lending Club challenges traditional banks in their backyard**

San Francisco-headquartered Lending Club offers better borrowing and lending rates than traditional banks. Operating online, Lending Club automates peer-to-peer loans across its digital platform. With operating costs that are 60 percent lower than those of traditional banks, Lending Club has experienced massive growth over the past five years.<sup>19</sup> Lending Club still has substantial space for growth in an area of the market that has historically produced more than 4 billion in profits annually.<sup>20</sup>

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### **Warby Parker creates a fashion experience – at low cost**

Over the past six years, Warby Parker has rapidly become a leading retailer of fashion eyewear. Warby Parker combines an outstanding online interface with store-based showrooming and try-at-home convenience to create a shared, relationship-based shopping experience.<sup>21</sup> Offering fashions that have captured the attention of magazines such as Vogue, and at roughly one fifth of the cost of alternatives, Warby Parker has grown into a business valued at more than USD 1 billion within six years.<sup>22</sup>

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Technologically, digitally reinvented businesses can effortlessly flip between self-owned or shared or rented capabilities. They are fluent in the language and business impact of technological innovation. And they seek to realize the full potential of new technologies either directly, or with the assistance of partner ecosystems.

Digitally-conceived organizations already possess Digital Reinvention attributes. They are establishing footholds in traditional markets, putting new competitive pressures on traditional industry leaders.

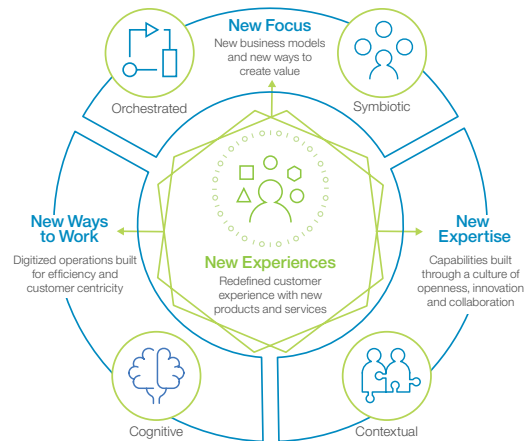
For example, non-bank digital natives are undermining the traditional banking business model. Built-for-digital pure plays are displacing traditional retail brands. And digital newcomers are reinventing how end users consume – and produce – energy.

## Readying for reinvention

For successful Digital Reinvention, organizations need to pursue a new strategic focus, build new expertise and establish new ways of working (see Figure 5).

**Figure 5**

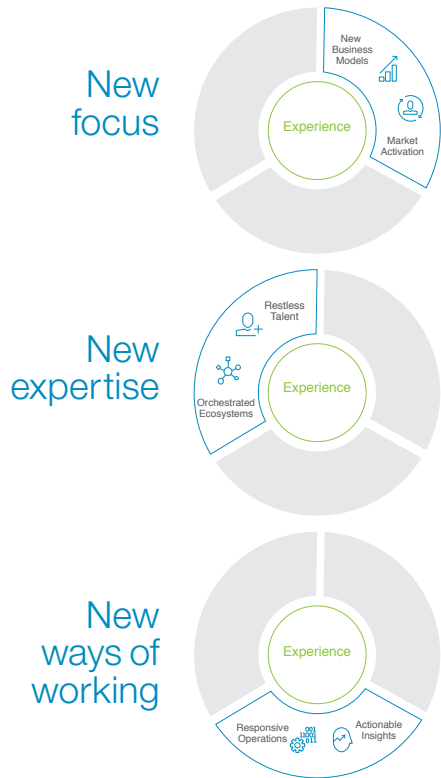
*The Digital Reinvention operating environment*



Source: IBM Institute for Business Value analysis.

### Clean Energy Collective devises new modes of generation and consumption

Founded in 2010, the Colorado-based Clean Energy Collective (CEC) builds, operates and maintains community-based clean energy facilities. Using remote metering technologies that integrate seamlessly with utility billing systems and installing solar panels either on customer's property or elsewhere, CEC is able to track and apply clean energy production credits directly on customer's bills.<sup>23</sup> By the end of 2015, more than 27 gigawatts of solar capacity was online in the United States, enough to power more than 5.4 million homes.<sup>24</sup>



### Pursue a new focus

Organizations need to pursue a new focus. Leading businesses will develop new ways of realizing and monetizing value and spawn new business models, new forms of financing and better, more holistic ways of conducting risk assessments. Leaders will also engage the market in deeper, more compelling ways. They will create strategies and execution plans to deliver deep, contextual, compelling experiences, and find new ways to monetize customer interactions.

### Build new expertise

Organizations need to build new expertise. Leading businesses will digitize products, services and processes that help them redefine the customer experience. They will augment these steps by applying predictive analytics, cognitive computing, the IoT and automation to create a fully integrated, flexible and agile operational environment necessary to support and enable deep experiences.

### Establish new ways of working

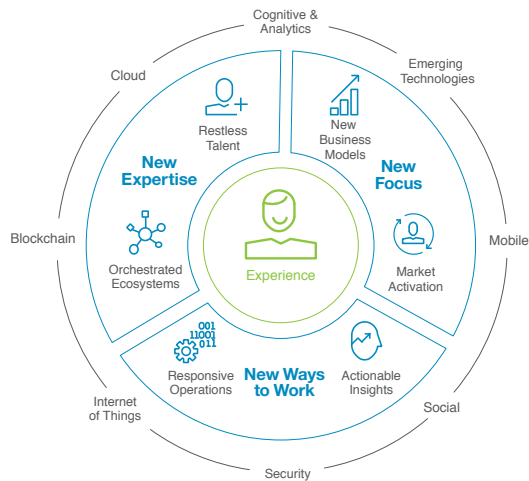
Organizations need to establish new ways of working. Leading businesses identify, retain and build the right talent needed to create and sustain a digital organization. The most successful among these take measures to create and perpetuate an innovation-infused culture incorporating design thinking, agile working and fearless experimentation.<sup>25</sup> Leaders contextualize organizational priorities within business ecosystems, seeking new forms of partnering and new ways to build value within overall systems of engagement. They think deeply and strategically about how customer priorities might evolve, seeking opportunities to create engagement platforms to the benefit of their customers, their partners and themselves.

## Embrace digital drivers

Digital drivers combine to create organizations that can build the deep, compelling experiences customers desire. Rather than incrementalism, Digital Reinvention provides a path for visionary organizations to adopt an experience-first approach to planning, employing the strengths of ecosystem partners to create experiences that are truly unique (see Figure 6).

**Figure 6**

*The Digital Reinvention framework*



Source: IBM Institute for Business Value analysis.

## Surfing the digital wave

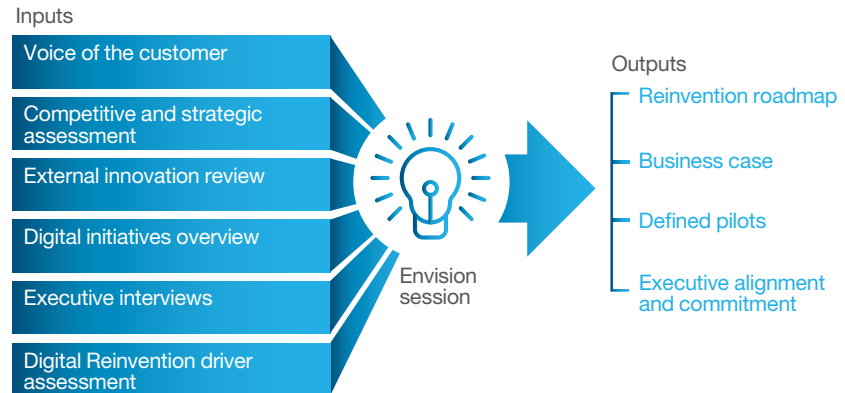
Four initial steps can set organizations on the path toward Digital Reinvention. Companies must envision possibilities, create pilots, deepen capabilities and orchestrate environments.

### Step 1: Envision possibilities

Use envisioning sessions such as design thinking to produce a definitive reinvention blueprint. For example, more deeply understand customers, brainstorm new ideas and visualize unexpected scenarios. Incorporate external stakeholders in these sessions, such as partners, customers and others to encourage thinking that goes beyond business-as-usual (see Figure 7).

**Figure 7**

*Envisioning possibilities*



*Source: IBM Institute for Business Value analysis.*

## Step 2: Create pilots

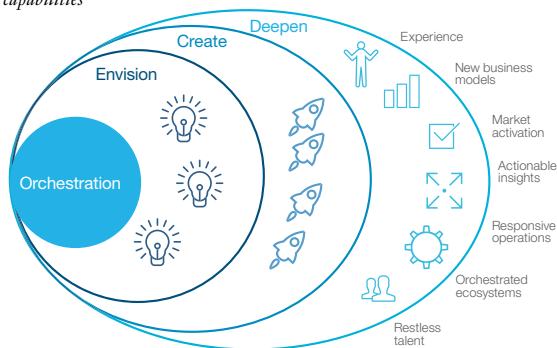
Create pilots and prototypes using agile development, test them with customers and get them to market quickly to promote feedback and iteration. Establish communities of interest to create safe environments to beta test innovations and incorporate them as a central part of design and development processes. Build a foundation of capabilities both internally and externally that support the ability to scale with speed either building upon successful innovations, or winding down unsuccessful ones (see Figure 8).

## Step 3: Deepen capabilities

Augment capabilities with strategic initiatives, and continue to build and deploy necessary applications aligned to the target Digital Reinvention operating model and ecosystem strategy. As pilots evolve, practical limitations or impediments around development will emerge, highlighting limitations in existing capabilities. As limitations present, adopt a continuous iterative strategy to build new or extend existing needed capabilities (see Figure 9).

**Figure 9**

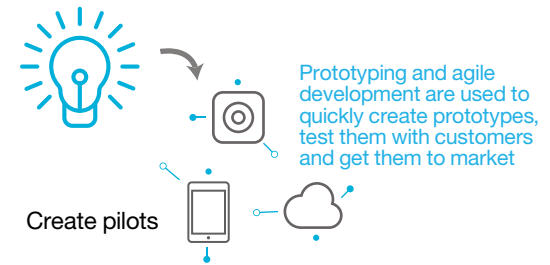
*Deepening capabilities*



Source: IBM Institute for Business Value analysis.

**Figure 8**

*Creating pilots*

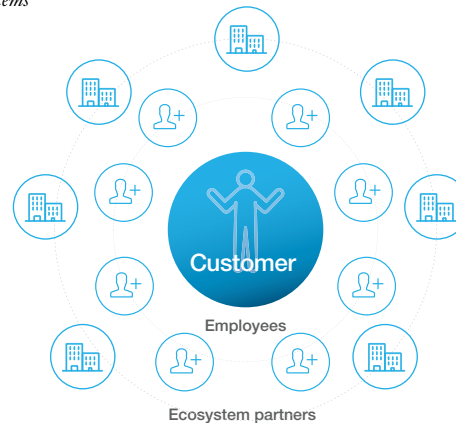


Source: IBM Institute for Business Value analysis.

**Step 4: Orchestrate ecosystems**

Embrace holistic reinvention rather than a series of point solutions by maintaining a clear focus on deep needs, aspirations or desires of customers. Focus also on the ecosystems of partners necessary to create and deliver on that customer promise. Thinking of customers as a totality of needs and desires will guide strategic decisions around whom to partner with and how to most effectively partner. Successful ecosystems can create environments capable of delivering compelling experiences, which might include products, services and other forms of interactions (see Figure 10).

**Figure 10**  
*Orchestrating ecosystems*



*Source: IBM Institute for Business Value analysis.*



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## Digitally reinvented enterprises

Leading businesses advance their digital journeys.

### **Ford becomes a mobility services provider**

Ford Motor Company is reinventing its business, evolving from a traditional automotive manufacturing company into a mobility services provider. Ford is building new expertise around vehicle connectivity, mobility, autonomous vehicles and big data. The company has formed a global ecosystem of startups and developers to build innovative solutions under its Innovate Mobility Challenge Program.<sup>26</sup> Ford is reimagining the customer experience through new products such as FordPass, an app-based platform that lets users pay for parking, share vehicles and obtain virtual personal assistance to move around more efficiently.<sup>27</sup>

### **Japan Post orchestrates comprehensive services for senior citizens**

Japan Post Service Company is reinventing its business, moving from traditional postal and financial services to become an integrated lifestyle support partner. Japan Post is employing a suite of digital technologies to deeply engage an elderly customer base of more than 33 million people, which is expected to grow to 45 million by 2020. The company is partnering with global technology leaders to create sophisticated mobile and analytics capabilities to support provision of lifestyle solutions to address customer needs and aspirations. Extending its trusted brand and relationship, Japan Post is working to improve health and wellness of seniors, supporting longer, healthier, more independent and higher quality lives.<sup>28</sup>

**Under Armour reinvents its business and customer engagement model**

Under Armour Inc. is reinventing its business from traditional sportswear manufacturing to digitally-enabled fitness products and services. Under Armour is building new capabilities that support Connected Fitness, a package of connecting apparel, activities and health within a single, integrated digital experience.<sup>29</sup> The company engages customers collaboratively through online and app-based communities. Under Armour's mobile experience will serve as personal consultant, trainer, coach and confidant, providing timely, evidence-based research, interaction and advice.<sup>30</sup>

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## Reinventing the future

Digital technologies have redefined how people live. Technology is already changing traditional industry structures and economics and is reinterpreting what it means to be a customer and a citizen. To thrive in a rapidly changing business environment, organizations will need to offer customers compelling new experiences, establish new focus, build new expertise and devise new ways of working. Leaders advance this process by embracing Digital Reinvention. They envision possibilities, create pilots, deepen capabilities and orchestrate new ecosystems.

### Key questions

- How does your organization deal with disruption?
- How agile is your organization when navigating new challenges as they occur?
- How can your workforce better embrace new ways of working and new strategic priorities?
- How can your organizational leadership conceive of what customers want even before they want it?

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### For more information

To learn more about this IBM Institute for Business Value study, please contact us at [iibv@us.ibm.com](mailto:iibv@us.ibm.com). Follow @IBMIBV on Twitter, and for a full catalog of our research or to subscribe to our monthly newsletter, visit: [ibm.com/iibv](http://ibm.com/iibv).

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