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*Digital Reinvention in the global insurance industry*

IBM Institute for Business Value

## Executive Report

Digital Strategy

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## Reimagining the enterprise

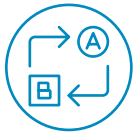
*The global insurance industry is conservative. Despite profound technological change over the past quarter-century, many leading insurers have adopted a “wait and see” posture. Fears of challenging powerful insurance broker communities, combined with almost extreme “customer stickiness” in many business lines, have held off the burning platform of disruption that has blazed brightly in industries such as retail, healthcare and banking. But disruptive innovation in adjacent industries is finally beginning to accelerate innovation in insurance. At the same time, the emergence of a vibrant insurance technology (insurtech) community is making it both easier and faster for insurers to embrace a concept we call Digital Reinvention.™*

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## Turn back time

Anyone who has accessed the website of a major insurer to investigate or renew a property or casualty policy over the past 20 years recognizes that the global insurance industry is not at the vanguard of digital innovation. Functionality and even look-and-feel often give the impression of tunneling through a time warp back to 1997. For most insurers, protected by regulation and serving consumers who have been slow to churn through policies, motivation has never been sufficiently high to embrace the major investments, organizational and cultural changes necessary to digitally transform their organizations in a fundamental way.

This reality is borne out in the data from a recent IBM Institute for Business Value survey of more than 2,200 global executives conducted in collaboration with the Economist Intelligence Unit. While 55 percent of all global business executives surveyed said that traditional value chains are being replaced with new value models in their industries, only 44 percent of insurance industry executives agree. Perhaps even more tellingly, while 51 percent of all business executives surveyed said that the boundaries between their industry and others are blurring, just 37 percent of insurance executives share a similar view. And while 55 percent of all respondents globally said that competition from new and unexpected sources is directly impacting their businesses, only 46 percent of insurance executives detect a similar challenge.<sup>1</sup>

**44%**

of surveyed insurance industry executives report that traditional value chains are being replaced with new value models

**37%**

of surveyed insurance industry executives indicate that boundaries between their industry and others are blurring

**46%**

of surveyed insurance industry executives say that competition from new and unexpected sources is beginning to impact their business

Clearly, the global insurance industry has been relatively immune to the vagaries of digital disruption. Seventy-four percent of insurance executives in a recent Willis Towers Watson report, for example, identify reluctance within the industry to adopt new digital technologies.<sup>2</sup> And 58 percent of insurance executives surveyed in a 2017 The Actuary article perceive that the industry as a whole lags behind other financial services in implementing digital technologies.<sup>3</sup>

Analysis suggests that the insurance industry remains well behind others in its embrace of digital technologies due to four major reasons. First, the tight industry regulations in most geographies often have the net effect of creating a barrier to entry, thereby stifling potential and actual competition.<sup>4</sup> Indeed, in the most recent IBM Institute for Business Value C-suite Study, 81 percent of insurance executives cite regulation as the single most important external factor affecting their business.<sup>5</sup> Second, for most service lines, customers typically default to a “the devil you know” mentality. Customer inertia in insurance therefore rates very high, with as many as 65 percent of insurance customers believing that switching costs outweigh switching benefits, even when they are dissatisfied with their insurer.<sup>6</sup>

Third, insurance, more than most other products or services, is based on established relationship and trust. As many as 43 percent of customers report a high level of trust toward their insurer.<sup>7</sup> Customers need to feel that an insurer will be there in the event of a catastrophe, and be willing to pay a claim. New entrants often find it difficult to build such trust quickly – or cheaply. And fourth, setting up an insurer is not a trivial affair. The potential cost of data security and privacy alone is substantial.

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## Believe

But despite the insurance industry's distance from the outer reaches of technological innovation, numerous activities or industries adjacent to insurance – and which directly bear on insurance – have been leading the digital wave.

In the automotive industry, for example, traditionally a rich source of insurance products and services, technology is rapidly changing the nature of both vehicle ownership and vehicles themselves. With the success of ride service applications and businesses such as Lyft, Uber and Didi, fewer consumers are purchasing vehicles. Autonomous driving, on the other hand, is fundamentally shifting both liability and insurance responsibility from driver to programmer.

Similarly, the rise of the Internet of Things (IoT) and its associated smart devices, smart homes, real-time intelligent health monitoring and a plethora of other innovations that are now mainstream or soon will be, are reshaping traditional insurance products and models.

At the same time, the financial technology (fintech) revolution that has so visibly impacted the banking and financial markets sector is now accelerating in insurance. Insurance technology companies, or insurtechs, are setting up to exploit weaknesses and vulnerabilities in established insurance models and traditional insurers. While still relatively embryonic, if unchecked, the rise of insurtechs may soon threaten industry mainstays.

For example, in the area of peer-to-peer insurance, new entrants such as UK-based Bought by Many are creating robust communities of policyholders with specific niche interests. Examples include people who own pets of a particular rare breed, those interested in extreme sports, or even those seeking travel insurance related to a specific medical condition. Bought by Many negotiates with traditional insurers to obtain terms that would be unattainable if participants were to negotiate individually.<sup>8</sup> The company reports average savings for members in excess of 18 percent.<sup>9</sup> In health insurance, Canada-based insurtech League connects participating members to a network of health services and health benefits through its app. Participating members are given a range of specific health plans to select from, rather than one-size-fits-all.<sup>10</sup>

California-based Trov, a provider of on-demand insurance, helps everyday people insure specifically for selective items rather than insuring the entirety of possessions or content. Once the purview of the super wealthy for protecting assets such as valuable artwork or antiques, on-demand services such as Trov's are democratizing specialty insurance.<sup>11</sup> And Canada-based Plex AI is incorporating machine learning and artificial intelligence (AI) into automotive telematics to provide insurance companies real-time diagnostics and deep analytics on both vehicle and driver.<sup>12</sup>

San Francisco-based insurance startup Embroker is using digital technologies to provide insurance brokerage services to small and mid-sized businesses. Applying its proprietary software and predictive analytics, Embroker is simplifying discovery, purchase and management of insurance policies through its digital platform.<sup>13</sup> The startup recently estimated that its customers would save in excess of USD 2 million in premium costs.<sup>14</sup>

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New York-based insurance startup Lemonade is using AI and a robust digital platform to improve processes and applying behavioral economics to reduce fraud. At the same time, it offers a unique claims experience to its customers. Specifically, Lemonade organizes peer groups supporting charitable causes, charges upfront fees and gives back unused premiums at the end of the year to charities personally selected by each peer group.<sup>15</sup> In addition to strong growth in previously uninsured markets,<sup>16</sup> Lemonade boasts a loss ratio that is less than half of that incurred by the industry as a whole.<sup>17</sup>

And San Francisco-based car insurance startup Metromile is using telematics to offer usage-based insurance. Metromile's telematics device uses mileage to provide personalized insurance pricing.<sup>18</sup> Underwriting cost savings, which are passed on to policyholders, amount to an estimated USD 500 per customer each year.<sup>19</sup>

For those who still consider such threats to be competitors' pipe dreams, reflect on the positions of big box retailers 15 years ago as they faced direct-to-consumer internet businesses. Or consider Blackberry, a device that most professionals saw as essential only a decade ago. Or think of the progressive collapse of rich revenue sources in banking, such as foreign exchange or consumer lending.

As a result of the many "micro-disruptions" in the global insurance industry created by insurtechs and others, the most dynamic organizations are already responding by applying digital technology to insurance functions, operations, and current and potential policyholder engagement (see Figure 1).

**Figure 1***Micro-disruptions and the insurance industry value chain*

	Marketing and product development	Policyholder acquisition	Underwriting	Policy administration and asset management	Claims
Aggregation		●			
Blockchain			●	●	●
Cloud				●	
Cognitive computing	●	●	●	●	●
Contextual mobility		●	●		●
Customer analytics	●	●			
Drones					●
Geospatial data			●		
Internet of Things	●				●
Mobile		●	●	●	●
Social		●		●	●
Telematics	●		●		●
Weather data			●		●

*Source: IBM Institute for Business Value analysis.*

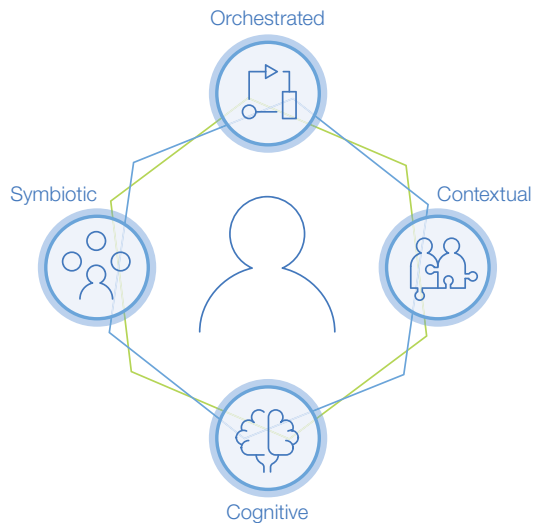


## Strong enough

The environment confronting the insurance industry is best understood within what we call the everyone-to-everyone (E2E) economy. The E2E economy has four distinct elements: It is *orchestrated*, based on business ecosystems that are both collaborative and seamless. It is *contextual*, in that customer and partner experiences are calibrated and relevant to their specific actions and needs. It is *symbiotic*, in that everyone and everything, including customers and businesses, are mutually interdependent. And it is *cognitive*, characterized by data-enabled self-supported learning and predictive capabilities (see Figure 2).

**Figure 2**

*The everyone-to-everyone economy consists of four elements*



Source: IBM Institute for Business Value analysis.

### Redefining underwriting and engagement

A leading reinsurer is using big data analytics and cognitive computing to digitally reinvent the underwriting process. With the help of AI, it is using data to mine historical perspectives on risk while anticipating the future with the benefit of predictive risk models. This empowers underwriters to assess risk faster and more confidently with the assistance of machine learning and other capabilities. At the same time, underwriting processes are being simplified to reduce overall insurance costs.

Within this context, Digital Reinvention™ combines multiple digital technologies – including cloud, AI, cognitive, mobile and IoT – to reconceive customer and partner relationships. It involves creation or orchestration of unique, compelling experiences for customers and other stakeholders by way of emergent business ecosystems. The most successful digitally reinvented businesses establish a platform of engagement for their customers, acting as enabler, conduit and partner.<sup>20</sup>

Digital Reinvention is possible – indeed inevitable – within the E2E economy. Digital Reinvention differs in concept from both digitization of individual capabilities or functions, and the process of digitally transforming major business processes or activities (see Figure 3).

**Figure 3**

*Digital Reinvention follows a path that starts with digitization and progresses through digital transformation*



Source: IBM Institute for Business Value analysis.

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To thrive in the face of technology-led disruption, insurers need to pursue strategies that extend beyond traditional digitization and even digital transformation, such as the shift to online insurance. In automotive insurance, for example, insurers need to engage customers immediately as risks develop and are discovered through intelligent telematics. In home insurance, insurers need to partner with customers to anticipate and mitigate losses before they happen – through smart home systems and alerts, among other tools. And in life insurance, insurers need to extend insurance coverage across similar customer profile groups, even as they concurrently individualize or tailor policies radically.

Digital Reinvention goes much further than transformation. It involves fundamentally reimagining of the way insurers operate and engage with policyholders and other stakeholders. It involves a wide range of digital applications, such as construction of deep, collaborative relationships through fully integrated ecosystems. Digital Reinvention is not fragmented or specific. It requires rethinking how insurance businesses operate and engage with partners, customers, the economy and society as a whole.

Some major insurers are already becoming vested in activities consistent with Digital Reinvention and the E2E economy. US-based Progressive Insurance Group launched its Business Innovation Garage, which helps employees field-test new ideas.<sup>21</sup> Illinois-based State Farm Insurance is partnering with Massachusetts-based Openbay to include State Farm products in its online auto maintenance marketplace so that vehicle owners can compare auto repair and maintenance quotes, and book appointments simply and transparently.<sup>22</sup> And France-based AXA established its digital innovation sourcing unit, AXA Lab, in Silicon Valley, California, to connect to the local innovators, piloting and launching digital initiatives.<sup>23</sup>

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### **USAA redefines and deepens member experience**

USAA is using predictive analytics to anticipate customers' life changes to proactively deliver personalized services that are automated at scale. Successfully partnering with several insurtech startups, it is employing a range of digital technologies, such as a virtual mobile assistant, to deliver unique member solutions. USAA's highly personalized member experiences have reduced attrition rates while significantly improving quality of service.<sup>24</sup>

**Figure 4**

*The Digital Reinvention operating environment revolves around new experiences*



Source: IBM Institute for Business Value analysis.

## All or nothing

Successful Digital Reinvention requires insurers to pursue a new strategic focus, build new expertise and establish new ways of working (see Figure 4).

### Pursue a new focus

Insurers need to develop new ways of realizing and monetizing value. Initiatives might include devising new business models, tapping new forms of financing and developing better, more holistic ways of assessing risk. Digital Reinvention leaders will also need to create strategies and execute plans to deliver deep, contextual experiences for policyholders.

### Build new expertise

Outperforming insurers will digitize products, services and processes that help redefine policyholder experiences. They will need to augment these steps with predictive analytics and cognitive computing, along with IoT and automation, to create fully integrated, flexible and agile operating environments.

### Establish new ways of working

Leading insurers will identify, retain and build the necessary talent to create and sustain their digital organizations. They will create and perpetuate innovation-infused cultures incorporating design thinking, agile working and fearless experimentation. And they will contextualize organizational priorities within business ecosystems, seeking new forms of partnering and new ways to build value within overall systems of engagement.

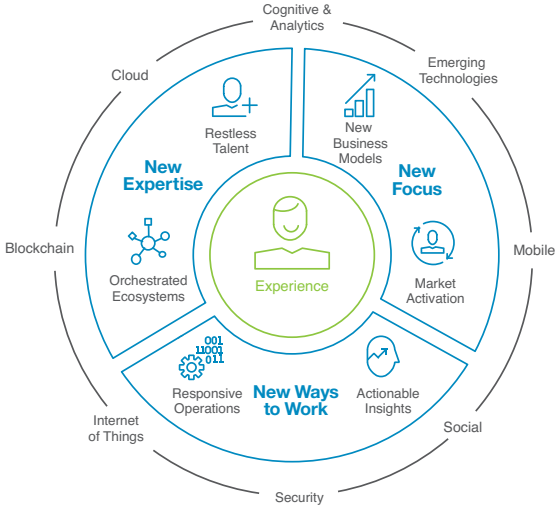
### Adopt a self-funding approach

Leaders will deploy technology to drive optimization and support scalable growth and market share. They will typically pursue digital investments related to their previous successes in growing revenue by penetrating new markets.

**Embrace digital drivers**

And they will be deeply proficient in digital technologies. By embracing Digital Reinvention rather than incrementalism, leaders can map a path to adopt experience-first approaches to planning that employ the strengths of ecosystem partners to help achieve mutual goals (see Figure 5).

**Figure 5**  
*The Digital Reinvention framework combines the strengths of ecosystem partners*



Source: IBM Institute for Business Value analysis.

**Aviva successfully advances an aggressive innovation program**

UK-based Aviva has successfully launched a range of initiatives, including investing in startups through Aviva Ventures and exploiting entirely new sources of data through the IoT and AI-related technologies, to promote new product innovation and development. The company is also exploiting new avenues to capture data, including real-time telematics and intelligent home monitoring.<sup>25</sup>

## The beat goes on

To set out on the path toward Digital Reinvention, insurance executives can take four initial steps: envision possibilities, create pilots, deepen capabilities and orchestrate environments.

### **Step 1: Envision possibilities**

Conduct envisioning sessions based on design thinking to produce a definitive reinvention blueprint. Through deep conversations and in-depth marketing analysis, develop a better understanding of policyholder needs, aspirations and desires. Brainstorm new ideas to enhance engagement and visualize unexpected customer scenarios.

### **Step 2: Create pilots**

Develop prototypes using agile development, test them with policyholders and get them to market quickly to promote feedback and iteration. Establish communities of interest to create “safe” environments to beta test innovations, and include them as a central part of design and development processes.

### **Step 3: Deepen capabilities**

Augment digital 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, impediments to development will emerge, highlighting limitations in existing capabilities. Enact a continuous, iterative strategy to address these limitations.

### **Step 4: Orchestrate ecosystems**

Execute through holistic reinvention rather than a series of point solutions, maintaining a clear focus on deep needs, aspirations and desires of policyholders, partners and others. Use ecosystems to expand and align a broader set of capabilities and to help create and deliver on customer promises.

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## Key questions

- How can you make your digital strategy ambitious enough to deal with disruption?
- What steps can you take to become more agile and therefore better equipped to respond to unexpected challenges and opportunities as they occur?
- How can you make your workforce open and flexible enough to quickly embrace new ways of working and new strategic priorities?
- What actions can help leadership become more visionary in conceiving what customers want before they know it themselves?
- How can you better employ automation technologies, such as wearable technology, IoT and robotics to improve operational efficiency, and risk identification and management?

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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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**Authors**

Craig Bedell is Global Insurance Executive for the IBM Sales & Distribution Financial Services Leadership. He is a member of the IBM Industry Academy, with over 30 years in the business of insurance, plus more than 10 years providing strategic leadership for insurance industry analytics solutions. Craig can be reached on LinkedIn at [bit.ly/CBedell](https://bit.ly/CBedell), and email at [cbedell@us.ibm.com](mailto:cbedell@us.ibm.com).

Christian Bieck is the global insurance leader for the IBM Institute for Business Value. An economist by training, he worked in various roles in the insurance industry in Europe before joining IBM as a process consultant and researcher. Christian can be reached on LinkedIn at [bit.ly/CBieck](https://bit.ly/CBieck), Twitter [@chbieck](https://twitter.com/chbieck) and email at [christian.bieck@de.ibm.com](mailto:christian.bieck@de.ibm.com).

Anthony Marshall is Research Director at the IBM Institute for Business Value. Anthony has consulted extensively with U.S. and global clients, working with numerous top-tier organizations in innovation management, digital strategy, transformation and organizational culture. Anthony can be reached on LinkedIn at [bit.ly/AnthonyMarshall](https://bit.ly/AnthonyMarshall), Twitter [@aejmarshall](https://twitter.com/aejmarshall) and by email at [anthony2@us.ibm.com](mailto:anthony2@us.ibm.com).

Stefan Riedel is Vice President Insurance and Insurance Solutions Europe. He has been serving the insurance industry for more than 20 years in various leading roles within IBM. Stefan can be reached on LinkedIn at [bit.ly/StRiedel](https://bit.ly/StRiedel), Twitter [@StefanRiedelIBM](https://twitter.com/StefanRiedelIBM) and by email at [stefan\\_riedel@de.ibm.com](mailto:stefan_riedel@de.ibm.com).



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New Orchard Road  
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