TECHNOLOGY VISION FOR INSURANCE 2017

AMPLIFYOU

TECHNOLOGY FOR PEOPLE

The Era of the Intelligent Insurer

accenture

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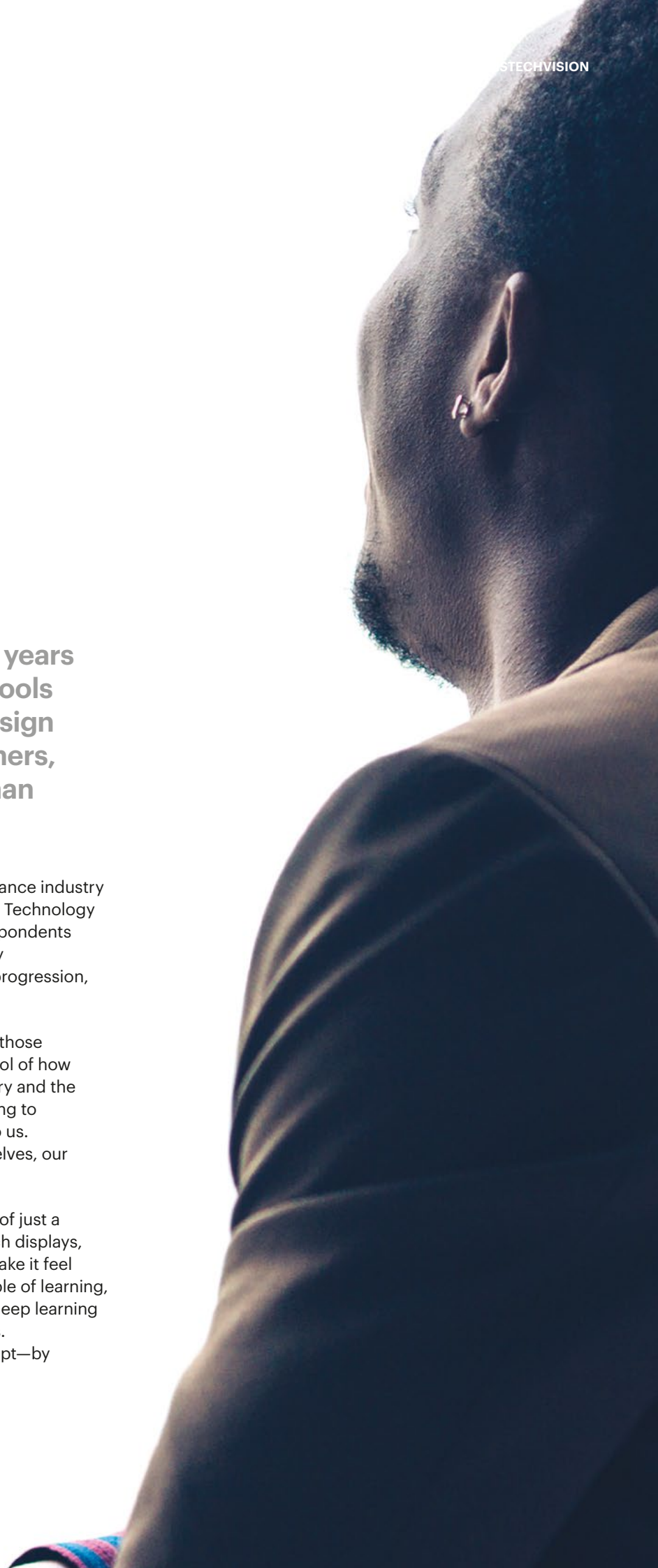
THE ERA OF THE INTELLIGENT INSURER

What sets this new wave of disruption apart from those that preceded it is that humans are firmly in control of how technology reshapes our experiences...



The biggest innovations in insurance over the next three years will not be in the technology tools themselves, but in how we design them with employees, customers, intermediaries and other human partners in mind.

Digital technology continues to reshape the insurance industry at an unprecedented and quickening pace. In our Technology Vision 2017 research, 87 percent of insurance respondents agreed that we have entered an era of technology advancement that is no longer marked by linear progression, but by an exponential rate of change.

What sets this new wave of disruption apart from those that preceded it is that humans are firmly in control of how technology reshapes our experiences, our industry and the wider world. It's no longer people who are adapting to technology—rather, the technology is adapting to us. We're putting technology to work to disrupt ourselves, our organizations and entire industries.

The technology we use today—compared to that of just a few years ago—is increasingly interactive, as touch displays, mixed reality, and natural language processing make it feel more human. Advanced technology is now capable of learning, with contextual analysis, image recognition and deep learning algorithms that make it seem to think more like us. And, perhaps best of all, technology can now adapt—by constantly aligning itself to our wants and needs.

COLLABORATING WITH AI AND LEVERAGING PLATFORMS

At work, we collaborate with artificial intelligence (AI) and machines to do our jobs better.

Adjusters use Tractable's deep learning systems to simplify the triage process after a car accident. Instead of manually scanning pictures, they use machine-trained estimates for repair costs, enabling agents to accelerate a claim past triage and into repair, salvage, or appraisal.[1]

Another example is Haven Life[2], which is challenging the adage that life insurance is too complex to be sold online. It offers basic products, with fast and simple underwriting. However, AI, immersion and other emerging technologies will support more and more complex interactions, and thus better enable sales and services via the digital channel.

We use sophisticated communication and collaboration technologies to work with colleagues on the other side of the globe, many of whom we'll never meet. WeGoLook is an 'Uber of inspections' that can dispatch 30,000 'lookers' to collect real-time data, photos or video on behalf of insurers for automotive and property inspections or insurance claims. Global claims management firm Crawford & Co acquired the company late last year.[3]

We also see insurance organizations combining with unlikely partners to create or spin off new ventures using platform technologies, as well as building bridges with the venture capital and fintech sectors to access to new thinking and technology.

One prominent example is an investment in Lemonade by XL Catlin's XL Innovate venture capital fund. Lemonade is a 'born in the new' insurance company that promises to deliver instant online insurance by replacing brokers and bureaucracy with bots.[4]

We use sophisticated communication and collaboration technologies to work with colleagues on the other side of the globe.

We see insurance organizations combining with unlikely partners to create or spin off new ventures using platform technologies.

Lemonade is setting new expectations in terms of claims payment speed, boasting of settling some claims in as little as three seconds. Co-founder Daniel Schreiber says: "Spiritually, we're a tech company," a philosophy reflected in how Lemonade uses AI and machine-learning to handle claims, sales and more besides.[5] Lemonade is also addressing consumer-to-carrier transparency by applying a flat, upfront fee to premium income rather than profiting from unclaimed premiums.

What all these examples show is that areas of practice that once seemed impossible to digitize are fundamentally changing because of the impact of AI, the Internet of Things, blockchain, big data analytics and other technologies. This has many potentially positive implications for society. It's not just that insurance organizations are transforming their own operations; they are using technology to empower people in ways big and small.

EMPLOYEES, CUSTOMERS AND AGENTS AS TRUE PARTNERS TO GO BEYOND INSURANCE

Insurers are becoming partners with customers, agents and employees, and with digital ecosystems of businesses beyond their walls. Success is increasingly tied not only to the success of products and services, but also to the success of partners. Leaders are empowering people by transforming technology from tools they must learn to use, to a powerful partner that will work with them rather than just for them.

As we look toward a future where quantum computing's near-unlimited processing and algorithmic power will solve difficult problems in entirely new ways across multiple industries, to robots and AI that will work side by side with people in every discipline, we are reshaping our entire world and ourselves within it.

Working with technology companies and vehicle manufacturers, insurers can help make autonomous cars a reality by managing and reducing the new risks they introduce. Home insurers can collaborate with security companies and home automation specialists to help create safer living spaces for their customers.

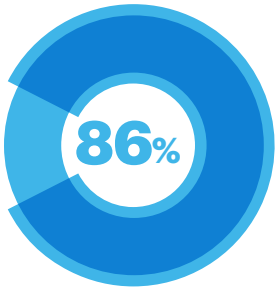
Life insurers are joining health ecosystems to coach people to lead healthier lifestyles and thus live longer lives. North America's John Hancock Insurance, AIA in Hong Kong and Generali in Europe, for example, leverage the Vitality incentive-based wellness platform from South Africa's Discovery to reward life customers for healthy living.[6] This approach boosts everyday customer engagement and offers gratification through rewards and incentives, addressing the lack of post-purchase gratification and infrequent customer interaction in life insurance

Life companies and their ecosystem partners could even leverage Internet of Things devices and apps to remotely monitor elderly customers' health indicators, thus allowing them safely to live independently for longer before they need to move into a frail-care home. Groupama[7] and Europ Assistance[8] in France have already started doing just this with their respective connected elderly offerings, NOE and Connect et Moi.

And in commercial insurance, carriers can help organizations understand, manage and even minimize the risks of cyber-crime, factory robotics, workplace drones and AI. Look at how Swiss Re is partnering with the government of Heilongjiang Province and the Sunlight Agriculture Mutual Insurance Company of China. They are working together to offer commercial insurance products that protect farmers against financial risks from natural catastrophes. This anti-poverty insurance solution combines a weather index product with a satellite-based flood parametric product.[9]

This is an example of new technology helping insurance organizations tap into new markets, recast their relationships with customers as risk advisors, and create innovative products and services. But even more powerfully, it shows that the digital age is equipping insurers with the tools to redefine their roles and help drive the next wave of evolution in society.

Success is increasingly tied not only to the success of products and services, but also to the success of partners.



of insurers say their organization must innovate at an increasingly rapid pace just to keep a competitive edge.

2017 VISION TRENDS
TECHNOLOGY FOR PEOPLE

Every business is digital. But today, our biggest innovations will not be in the technology tools themselves, but in how we design them with people in mind.

In this year's Technology Vision, we've identified five trends that underscore the importance of focusing on 'Technology for People' to achieve digital success.

TREND 1

AI IS THE NEW UI

The Experience Above All

Artificial intelligence (AI) is about to become an insurer's digital ambassador to its customers, agents, employees and business partners. Moving beyond merely serving as a back-end tool for the digital insurer, AI is taking on more sophisticated roles within technology interfaces. AI is making every interface both simple and smart—and setting a high bar for how future interactions will work.

TREND 2

ECOSYSTEM POWER PLAYS

Unleash the Power of Us

Insurers are starting to integrate their core business functions with third parties and their platforms. But rather than treating them like partnerships of old, forward-thinking leaders are leveraging these relationships to build their role in new digital ecosystems—instrumental to unlocking their next waves of strategic growth.

TREND 3

WORKFORCE MARKETPLACE

Invent Your Future

Digital insurance leaders are beginning to reinvent their workforces. Driven by a surge of on-demand labor platforms and online work management solutions, legacy models and hierarchies are being dissolved and replaced with open talent marketplaces. The resulting on-demand enterprise will be key to the rapid innovation and organizational changes that insurers need to transform themselves into truly digital businesses.

TREND 4

DESIGN FOR HUMANS

Inspire New Behaviors

The new frontier of digital insurance experiences is technology designed specifically for individual human behavior. As technology shrinks the gap between effective human and machine cooperation, accounting for unique human behavior expands not only the quality of the experience, but also the effectiveness of technology solutions. This shift is transforming traditional personalized relationships into something more valuable: partnerships.

TREND 5

THE UNCHARTED

Invent New Industries, Set New Standards

Insurers are not just creating new products and services; they're shaping new digital industries. From technology standards to ethical norms, to government mandates, in an ecosystem-driven digital economy, one thing is clear: a wide scope of rules still needs to be defined. To fulfil their digital ambitions, insurers must help shape the new rules of the game. Those who take the lead will find a place at or near the center of their new ecosystem, while those who don't risk being left behind.

AI IS THE NEW UI

The Experience Above All

AI is coming of age to become the new user interface of every digital insurer. Simple and smart interactions will deliver value at each connection with insurance customers, employees and partners.

From autonomous driving vehicles that use computer vision to live translations made possible by artificial neural networks, AI is maturing. As it does, it could make every user interface in the business simpler and smarter—enabling insurance carriers to vastly improve the experience and outcome for every customer, intermediary and employee interaction.

As AI takes over more of the user experience, it grows beyond just an intelligent interface. With each interaction becoming more personalized, powerful and natural, AI will become a pipeline for customer satisfaction and loyalty. It will also be key for employee and agent engagement as well as for operational efficiency.

For most insurers, it begins with intelligent automation in the back-office. Many carriers are experimenting with or deploying automated data capture and recognition, robotic process automation (RPA) and cognitive robotics as levers to improve operational efficiencies and customer experiences.

From using these technologies to automate rules-based business processes, the next step will see carriers create AI interfaces that make complicated technologies and processes more approachable for customers, agents and employees. Employees may soon direct IT support questions to a chatbot or business analytics queries to a virtual assistant like Rhizabot, for example.

Rhizabot listens as a user asks a question in natural language through Amazon's Alexa, an Android smartphone, or the Google Chrome browser. People can pose questions such as "What websites are most effectively reaching my customers?" and "What cities do my best customers live in?" Rhizabot generates queries that can be run instantaneously across multiple massive datasets and delivers the results as visual reports or PowerPoint presentations.[10]

AI will also soon become an invaluable interface for insurance agents as they try to offer their customers the best advice about the many and complex products they represent from multiple carriers. It will be commonplace in future for agents and bots to work in partnership to optimize a quote or financial advice, with AI mining multiple datasets to offer contextual insights into the customer's needs, the products in the market and other factors.

And AI will also deliver new and superior customer experiences. Canada's Manulife is using Nuance's natural language understanding (NLU) and voice biometric technologies to improve its contact center customer experience. Users simply say "at Manulife, my voice is my password" to access their accounts.[11]

of insurance executives agree that AI will revolutionize the way they gain information from and interact with customers.

AI ON THE FRONTLINE

We're already seeing a growing list of insurers leverage AI to transform their customer- and distributor-facing channels, including the use of robo-advisors to support customers in their purchasing decisions. In some cases, they are choosing to partner with emerging players like Motif or Betterment; in others, they are developing their own capabilities.

Consider the instance of the Allstate Business Insurance Expert—or ABIe. This virtual assistant with an on-screen personality helps agents quote and issue commercial insurance products. It finds answers through a combination of contextual knowledge and intelligent content. Asking ABIe is faster than phoning the call center and is the preferred way for Allstate agents to get help.[12]

And some insurance pioneers are already taking AI to the customer frontline, using it to streamline claims, answer basic customer queries and, increasingly, to offer straightforward advice about complex products to customers in a codified and consistent manner. Whether deployed alone or to augment agents and employees, AI offers insurers significant potential efficiency gains and scalable ways to improve service.

For example, Fukoku Mutual Life Insurance in Japan is using the IBM Watson Explorer AI platform to classify diseases, injuries and surgical procedures as well as to calculate claims pay-outs. When policyholders call the hotline to make a claim, the system analyzes the customer's voice and detects keywords. Other Japanese insurers such as Dai-Ichi Life Insurance are also pioneering AI as the country grapples with an ageing population and a shrinking workforce.[13]

of insurers are prioritizing ease of use and simplicity in the user interface to ensure a more human-like experience.

GEICO in the US, meanwhile, has launched a virtual assistant for its mobile app. Called Kate, it understands natural language and can answer basic questions like, "What is the current balance on my auto insurance policy?" or "When is my next payment due?"[14] Such assistants will, in time, evolve to answer more difficult questions and support the sale of more complex insurance products.[15]

Insurtechs such as Germany's Snapsure and the UK's Spixii are also looking at AI as a means of disrupting the market. The Spixii chatbot draws on user data and contextual data from multiple sources to advise a customer on which insurance to buy, speaking to him in plain language rather than financial jargon. Spixii is in early testing for P&C and life sales.[16]

THE NEW FACE OF THE CUSTOMER EXPERIENCE

Within the next three years, insurance customers may spend as much time engaged with AI as talking to company employees or agents. Advice will remain a pillar of the client relationship for many insurers, especially for life products, but it will be offered as a combination of algorithm-based automation and person-to-person interaction.

Customers will base their opinions of and interest in a company on the company's AI, just as they judge by their experiences with human employees. Yet the benefits insurers may gain are immense. Instead of interacting with only one person at a time like a human representative, an AI system can interact with an infinite number of people at once.

AI-supported relationships can exist and grow across interfaces and communication styles: text-based chats, spoken conversations, gestures, or even virtual reality. People can choose how much and what kind of interaction they want to have with the company at any given time. Not only can AI maintain a consistent brand experience through every interaction; it can also use learning capabilities to tailor that experience to each individual, and evolve the experience to react to any new product or strategy the enterprise wants to implement.

What's more, many insurance customers are already prepared to buy and seek service and advice from AI. Accenture research indicates that 74 percent of insurance customers are willing to receive computer-generated advice about the type of insurance coverage to purchase.[17]

of insurance executives believe AI will transform or bring significant change to the industry over the next three years.

BRINGING AI TO LIFE

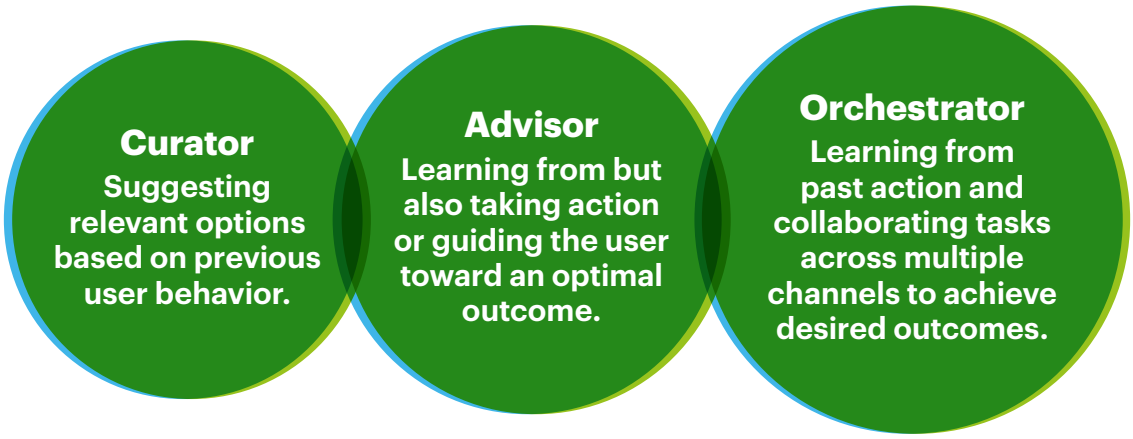
Despite skepticism of AI as just another technology buzzword, its momentum is very real. Eighty-five percent of executives we surveyed report they will invest extensively in AI-related technologies over the next three years.

To bring to life the promise of AI across an interface, businesses must redesign their existing systems to support its features and technical dependencies. That means developing AI capabilities within UX/UI teams, and training them to take advantage of existing AI toolkits. It also means changes to business processes and infrastructure.

Insurers will need to develop the necessary connections between systems and interfaces and then between different points of interaction. Robust sets of data are needed from every channel—not only initially to train the AI to interact with customers and employees, but also for it to continuously learn how those interactions should evolve over a lifetime.

AI-enabled interactions are ushering in an era of disappearing technology. Deploy AI well across company interfaces, and customers no longer need to understand complicated technology to use it: they can simply talk to, gesture at, or touch the AI that controls it. Put simply, invisible technology gets more use.

Uses of AI in the user experience



Spotify
suggests weekly new music based on the user's prior listening preferences and behaviors.

LettuceBot
can identify each sprout on a farm as lettuce or a weed and provide yield optimization solutions for farmers.

Amazon's Alexa
connects to offline services and objects in the home to create a personalized environment.

AI IS THE NEW UI: KEY TRENDS

- Enterprise software vendors are **building or buying AI to integrate into their solutions**—from Salesforce Einstein, to Microsoft Azure Cognitive Services, to the Google Cloud Platform.
- Voice searches on the web skyrocketed from 'statistical zero' to **more than 10 percent** of searches globally just a year later in 2015.[18]
- Accelerating AI's adoption is the fact that many of the **core technologies are available for free.** Open source AI tools have proliferated over recent years, from Google's TensorFlow to Intel's Trusted Analytics Platform.
- AI's ease of use and performance are **outpacing traditional interfaces.** Voice recognition completes searches three times faster than typing on mobile devices, increasing accuracy as well.[19]

of insurance executives agree AI will accelerate technology adoption throughout their organization.

100-DAY **PLAN**

1. Rank your customer, intermediary and employee interactions by how critical they are to your current revenue and future growth.
2. Pick three to five interactions and work with your service and product teams to streamline customer engagement with your most valued products and services; launch a test-and-learn process.
3. Launch a discovery phase to analyze how robotics and AI could bring strategic value to your organization.
4. Identify what information and insights you lack that would help you improve the user experience.
5. Develop AI personas that fit your brand and communicate your brand voice.
6. Consider piloting AI in roles like content curator (for personalization) or interaction advisor (for intelligent automation). Think about starting with an internal process such as IT support.
7. Identify communication channels and platforms for integrating conversational experiences with your brand. Consider internal as well as external interactions.
8. Gather and review existing key performance indicators (KPIs) for customer success. Ensure these KPIs account for the benefits of simplified interactions.

365-DAY **PLAN**

1. Implement increasingly sophisticated AI personas that not only curate or advise, but also aim to orchestrate as much as possible—among your brand and ecosystem stakeholders—for key customer interactions.
2. Create a robotics and AI center of excellence to industrialize and scale-up your robotics and AI projects.
3. Develop analytics that takes account of front-end customer insights and back-end business intelligence to better understand key customer interactions.
4. Develop and pilot a training program for AI teams and UX/UI teams to cross-train on implementing AI to improve and simplify key customer interactions.
5. Design a new customer journey where AI serves as your frontline brand ambassador for customer service interactions, communications, and engagements with customers.

AI IS THE NEW UI

PREDICTIONS

1. In five years, more than half of your customers will **select your services based on your AI** instead of your traditional brand.

2. In seven years, most interfaces **will not have a screen** and will be integrated into daily tasks.

3. In 10 years, digital assistants will be so pervasive they'll keep employees productive 24/7/365, **operating in the background** for workplace interactions, like creating video summaries right after an important meeting.

ECOSYSTEM POWER PLAYS

Unleash the Power of Us

The competitive advantage of tomorrow won't be determined by one company alone, but by the strength of the ecosystems it chooses, and its plans to help the ecosystems grow.

Businesses are increasingly integrating their core business functionalities with third parties and their platforms. But rather than treat them like partnerships of old, forward-thinking leaders leverage these relationships to build their roles in new digital ecosystems—instrumental to unlocking their next waves of strategic growth.

As ecosystems rise, they blur the boundaries of old industries and create new ones. General Motors no longer considers itself only as an automaker, but also as a transportation-on-demand company. Last year, GM invested $500 million into ride-share platform Lyft and launched the Express Drive service—an offering that lets Lyft drivers rent cars directly from GM and get to work right away.[20]

Beyond ride-hailing, GM is using Lyft's platform to join an entirely new digital transportation ecosystem—one that connects a traditional auto manufacturer with leaders in ride-sharing and autonomous vehicles. Similar ecosystems are emerging across the smart office, the connected home, healthcare, agriculture and more. Insurers must decide where they will play in this new world.

As the world moves to platforms and ecosystems, core insurance business functions—from customer service to distribution and underwriting—will rely heavily on a complex network of digital partners, reaching far beyond the walls of a single organization. We're already starting to see insurance platforms and ecosystems come together. One example is a recently announced global strategic partnership between AXA, Alibaba and Ant Financial Services.[21]

The partnership will explore opportunities to distribute AXA's insurance products and services through Alibaba's global ecommerce ecosystem. This includes insurance products for e-commerce customers, commercial insurance for small and medium businesses on Alibaba's wholesale marketplaces, and travel insurance for Chinese Ant Financial Services customers traveling overseas.

China's first Internet-only insurer, Zhong An Online Property and Casualty Insurance, is another example of a platform and ecosystem power play. The joint venture between Alibaba, Ping An and Tencent has a multibillion dollar valuation, offers more than 300 insurance products, and claims to have written 7.6 billion policies for more than 535 million customers.

Around half of its business comes from selling shipping return insurance to customers shopping on Alibaba's e-commerce platform. The company also offers flight delay insurance through online travel agencies and smartphone screen insurance to Xiaomi smartphone users in China.[22]

As ecosystems rise, they blur the boundaries of old industries and create new ones.

FINTECHS IN THE FRAY

Platforms are the central hubs for these rich and complex emerging ecosystems. Consider the rise in companies like Airbnb and Uber, whose platforms comprise their entire business, or the fact that 70 percent of 'unicorn' startups are platform companies.[23] These digital-born companies carved out their roles in fragmented or saturated markets by aggregating services into a single, convenient point of access.

Digital companies are rushing to market with insurtech and fintech platforms.

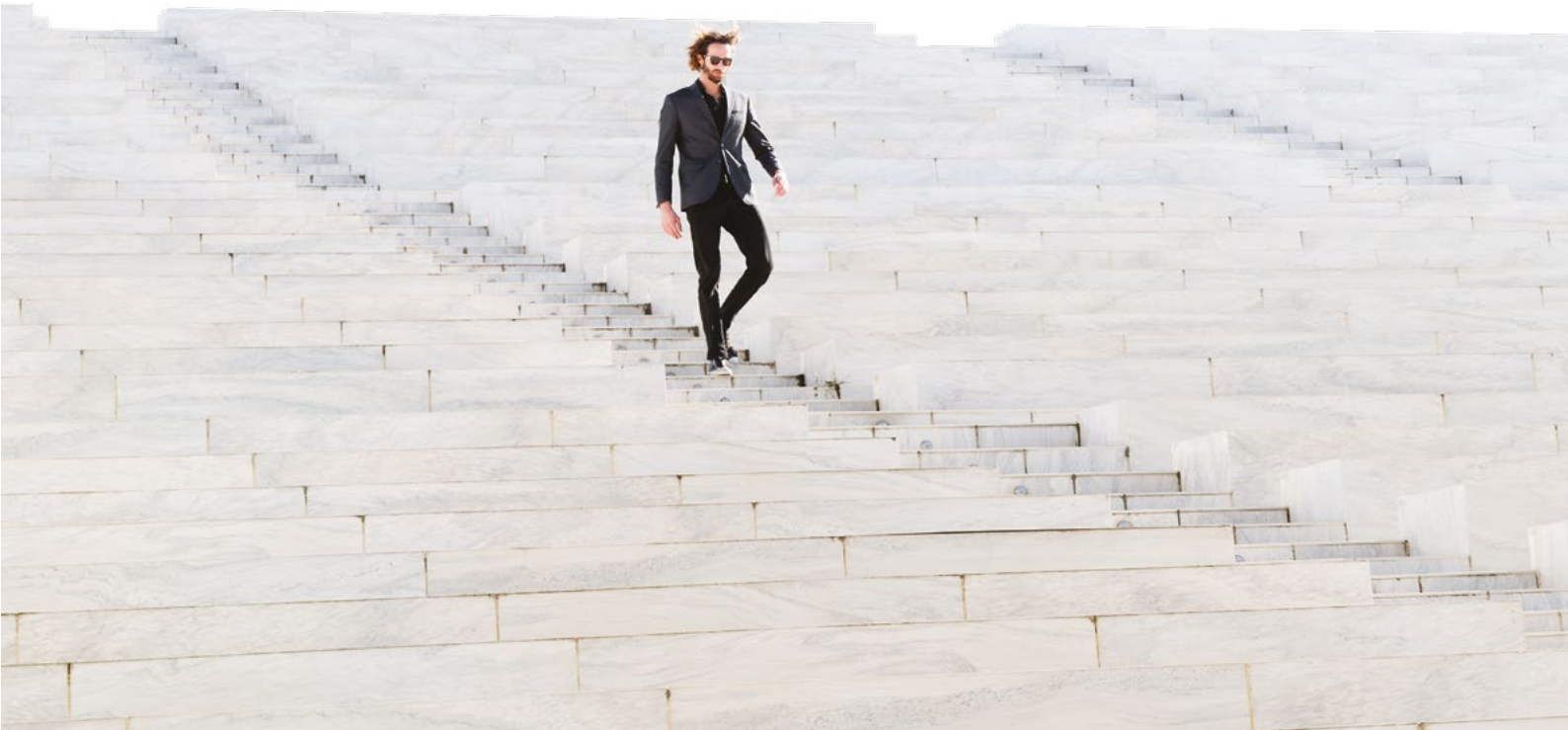
Now, digital companies are rushing to market with insurtech and fintech platforms, giving insurers the choice of whether to leverage their software or build platforms of their own. Berlin's simplesurance has developed software that integrates into online stores' checkout process, allowing customers to buy product insurance with a click. Allianz has bought a minority stake in, and concluded a distribution agreement with, the company.[24]

of insurers agree competitive advantage will not be determined by their organization alone, but by the strength of the partners and ecosystems they choose.

of insurance executives agree that digital ecosystems are having a noticeable or transformative effect on the insurance sector.

For insurance organizations, leveraging platforms from third parties is not new, however. Carriers and brokers were early to recognize the potential of leveraging Google's platforms for advertising. Insurance-related keywords are consistently among the most expensive on the Google AdWords platform.[25] In the UK, digital platforms aggregating private insurance account for 60–70 percent of new business premiums.[26]

Many carriers also use public, private, or hybrid cloud technology, linking them into ecosystems they can join, and a potential network of partners they can leverage to bring their future strategies to life. For years, companies have effectively been picking long-term partners and the ecosystems they'll be participating in as they made tactical decisions on technology providers, third-party platforms and distribution partners.



EMBRACING A **HOLISTIC STRATEGY**

The challenge for insurance carriers right now is to embrace a more holistic strategy that balances tactical decision-making with strategic investing in the digital ecosystems that will encompass their long-term growth.

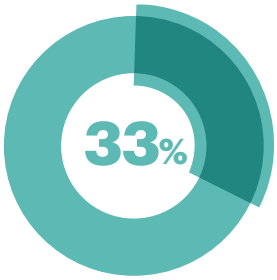
In doing so, insurers can lay foundations for their future digital value chains—and position themselves at the heart of the emerging digital markets that will determine tomorrow's leaders in every industry.

Most of the new digital ecosystems, from the connected home, to precision agriculture, to connected health, are still small. But companies are choosing both their partners and their roles in these ecosystems now. As they mature and grow their audiences, other businesses congregate around them, looking for inroads to new customers. Those businesses integrate their services with the platform, which grows and draws more new customers, and the cycle repeats.

As insurers look to expand into the next generation of digital ecosystems, some may build platforms themselves and create ecosystems with their business at the center. But not every company needs to be the platform provider. Many will find it cheaper and faster to leverage existing platforms as their means to enter new ecosystems.

Communication platforms like WeChat and WhatsApp, and AI intermediaries like the Google Assistant, Alexa, and Siri represent distinct ecosystems delivering unprecedented access to customers—and they offer interesting possibilities for insurers. Aviva in the UK[27] and Liberty Mutual Insurance[28] in the US have both launched 'skills' (the Amazon term for apps and services on Alexa) for Amazon's Echo voice-activated device.

Customers can ask the device—which plays music, provides information and controls household appliances—natural language questions about insurance. Amazon's Alexa intelligent personal assistant will respond. The insurers didn't need to build these capabilities themselves, or acquire a technology company to build them. They could simply leverage Amazon's platforms and ecosystem to enhance the insurance experience. While basic for now, insurers are likely to use this technology more in the future to reach the growing audiences served by these popular ecosystems.



of insurers are aggressively taking steps to participate in digital ecosystems.

NEW POOLS OF CUSTOMERS

Such platforms give insurers rapid access to pools of customers and, in the process, can drive more sales, improve customer service, and create a better customer experience. In leveraging these entry points, carriers are no longer driving customers to traditional touchpoints used to build strong relationships, like their own apps, website, and even retail locations.

Rather than fighting this change, forward-thinking companies are taking steps to strengthen their future roles within this context—like making application programming interfaces (APIs) a key part of growing their brand. There are also risks for insurance organizations as platforms take control of the customer interface and relationship. Few insurers will want to contemplate a future where they merely provide commoditized, white-label products to platform owners. The leaders will be thinking about how to take a more prominent role in their customers' future lives and create business models that keep their brands in the forefront of the ecosystem.

Whether it's accessing new customer touchpoints or building new markets with industry partnerships, the external platforms that insurance organizations rely on throughout their enterprise are becoming the gateways to new digital ecosystems—and the pillars of an evolution in their value chain.

The race is on, as companies across industries begin to forge the relationships that will drive their next waves of growth. An explosion of collaborative ventures between industry leaders is on the horizon, and the success of these endeavors will determine who leads and who gets left behind.

Few insurers will want to contemplate a future where they merely provide commoditized, white-label products to platform owners.

of insurers say adopting a platform-based business model and engaging in ecosystems with digital partners are critical to their success.

100-DAY **PLAN**

1. Conduct an audit identifying how many internal and external platforms your company is using and the goals for their use. Identify and address unnecessary overlaps.
2. Determine the platforms your organization most relies on, as well as those that most depend on you. These are the ecosystems where your organization should hold its strategic and market strengths.
3. Have a strategy summit with your closest partners to understand their goals for the future. Uncover shared goals and commit to developing a strategic plan for achieving them together.
4. Evaluate your options—build an ecosystem around a customer need (transport, healthcare) or participate in someone else's. Make the choice based on customer lifecycle events and the insurer's role.
5. Consider your organization's future through the lens of the biggest disruptions shaping your market. Craft the ideal role of your company in this future, and develop a shortlist of partners who can help make it a reality.
6. Develop metrics to quantify the results of ecosystem participation. These may include sales growth, API requests, customer satisfaction and growth of new partnerships.

365-DAY **PLAN**

1. Extend a significant portion of a core business function to a third-party platform or digital aggregator. Build a bigger stake in an emerging ecosystem, bringing its strengths into your organization.
2. Use an existing partnership to pilot building your own ecosystem. Make your selection based on complementary strengths, like mature platforms or digital services. Start with one joint offering, such as combining services into a single point of access.
3. Prepare a foundation for expanding your ecosystem by making a significant investment in either a startup or a joint venture that will establish a foothold in an area critical to your organization's transformation.
4. Appoint a cross-functional team and C-suite sponsor to guide long-term ecosystem efforts.

ECOSYSTEM POWER PLAYS

PREDICTIONS

1. In five years, the majority of customers will be **purchasing goods or services through digital intermediaries** such as messaging platforms, connected devices, or smart assistants.

2. Five years from now, 80 percent of the S&P 500 will be **engaged in multiple industry ecosystems**, and most will have made public statements about increasing their reliance on ecosystems for future revenue growth.

3. In seven years' time, an industry leader from today will have transformed into an ecosystem company spanning multiple markets. The enterprise will lie at the center of a disruptive ecosystem, holding **no physical headquarters and few permanent staff**. Its highest-valued asset will be a digital platform.

WORKFORCE MARKET PLACE

Invent Your Future

On-demand labor platforms and surging online management solutions are the new talent marketplaces, driving profound economic transformation.

Insurance is on the cusp of a skills crisis as it struggles to attract 'born digital' professionals to join the industry, and faces the retirement of a vast part of its existing workforce over the next few years. The Insurance Information Institute, a US-based industry association, estimates that half of the country's insurance workforce is aged 45 or above. A quarter of them are expected to retire by 2018.[29]

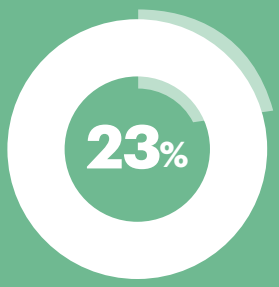
What's more, many insurers are finding that their existing workforces lack skills in customer experience, analytics, AI and other digital competencies they need to remain relevant in a changing market. As traditional roles are automated, insurers' workforces may shrink, but the people will need to be more tech-savvy, creative, analytic, customer-centric and entrepreneurial. There will be new roles for people building AI customer experiences or orchestrating ecosystem partnerships.

Insurers are keenly aware that they need to rethink their approach to talent to thrive against this backdrop of digital disruption. Of the insurance executives we surveyed, 62 percent indicated they plan to increase their organization's use of independent freelance workers over the next year. And nearly 79 percent said their organizations are under competitive pressure to extend innovation into their workforce and corporate structure.

of insurance executives agree the digital revolution is driving a new era of corporate economic structure.

PLATFORMS CHANGE THE GAME — AGAIN

Squaring up to this growing skills challenge will demand creativity and commitment. Insurance organizations must reimagine their workplace practices for a generation that expects to find pervasive collaboration technologies at work and that is open to freelance and portfolio careers. New labor platforms and collaboration tools offer insurance carriers a means to do just that.



of insurance executives currently view freelance workers as a seamless part of the workforce.

These offerings enable insurers to quickly look internally or to the external labor market to meet the demand for skills. They offer efficient ways for insurers to plug gaps in their own capabilities—for example, accessing top UX or data science skills on-demand—and to efficiently speed new products or initiatives to market.

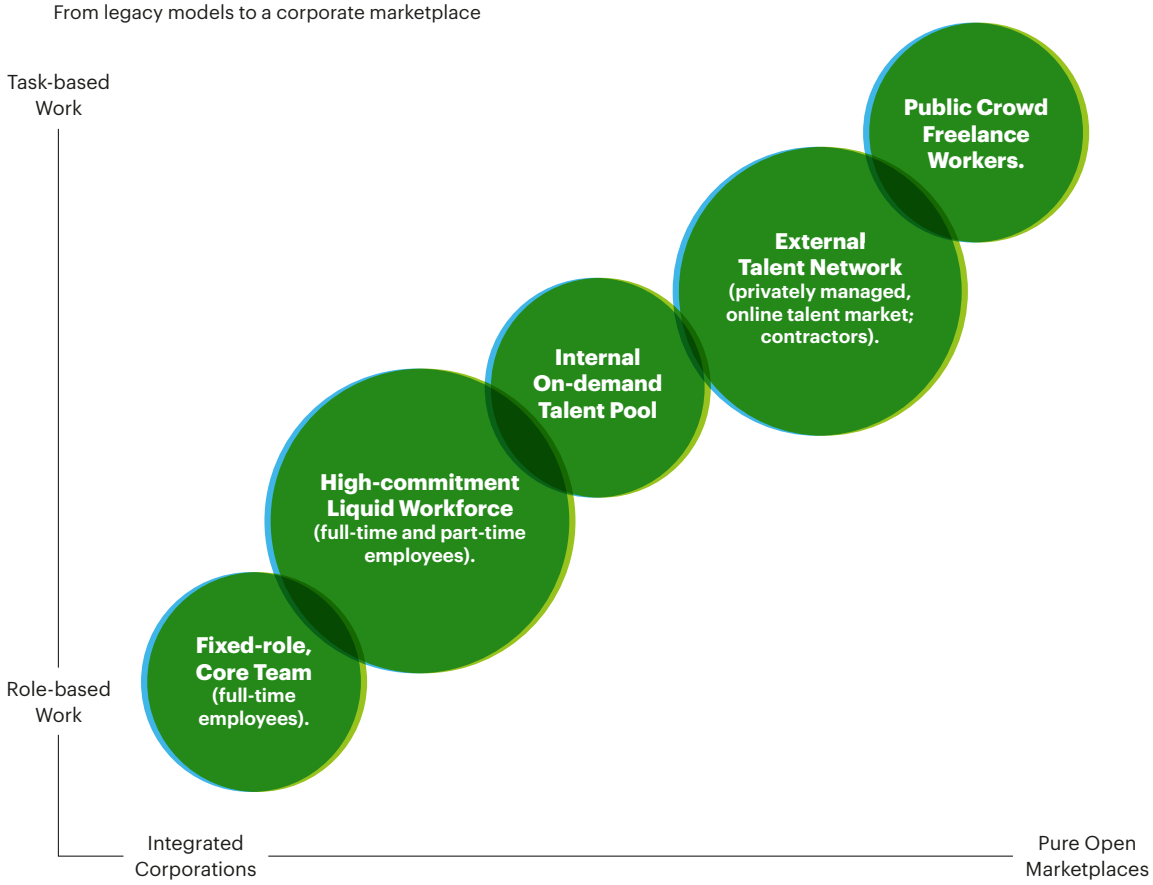
Some insurers are already leveraging technology solutions that efficiently match the supply and demand for people and skills. When State Farm wanted to test whether dashboard cameras could detect driver distraction and automatically alert the driver, it crowdsourced machine learning solutions through a contest on the Kaggle platform.[30] Other insurers such as Allstate and AXA have also used Kaggle.

On-demand labor platforms like Freelancer and Gigster, which also provide online work management solutions, enable insurers to virtualize part of the workforce. Next-generation digital tools like Slack and Google Hangouts, meanwhile, orchestrate communication for newly virtualized and distributed workplace environments.

Taken together, this allows insurers to efficiently plan, manage and oversee the remote execution of work, in turn enabling companies to leverage both internal and external workers—the blended workforce. This means that they can, for example, continue to draw on retired workers who wish to work part-time or pull in the skills of high-end professionals as needed.

Some insurers are already leveraging technology solutions that efficiently match the supply and demand for people and skills.

From legacy models to a corporate marketplace



THE NEW GLOBAL MARKETPLACE FOR SKILLS

Upwork is just one example of a platform where insurance carriers can complement their long-term traditional workforce with the borrowed skills and experience of external workers. The platform reports more than $1 billion in freelancer earnings per year through matchmaking transactions; 100 of the Fortune 500 are already using Upwork.[31]

Catalant boasts a supply of more than 30,000 MBA-type consultant freelancers, and the company continues to expand its focus on the needs of the large enterprise. These matchmaking platforms transparently connect labor, and transform the business world through new economic structures.[32]

Nearly 30 percent of insurers in our survey are already using such platforms on a large scale or broadly across their businesses; another 48 percent use them in select business areas. Insurers who are not yet using platforms can test the waters without making immediate major changes to their own existing management models, perhaps with an emphasis on areas where skills are in short supply such as analytics and digital customer experience.

This will suit the pace of evolution in a conservative industry where organizations have tended to be structured around specialist disciplines such as underwriting and claims and have retained their line-of-business siloes. From these experiments, insurers can begin to transform their workforces more broadly.

They can take a marketplace-like approach, where people from the internal and contingent workforces can be teamed together on-demand from project to project, based on skills, knowledge and staffing needs. Those who invest in people innovation today will unleash human potential and creativity, and by evolving their corporate structures, fill in a missing piece in the digital revolution.

New models for inspiring insurance innovation

- Bureaucratic management models have driven the success of insurance organizations for decades, and their employment model continues to be based on fixed roles and rules. Designed for times of stable markets and long-term planning, these approaches inherently maintain the status quo and constrain innovation.
- Around 75 percent of insurance executives we surveyed reported that corporate bureaucracies are stifling productivity and innovation. This restricts their ability to evolve as fast as digital and non-traditional competitors and to keep pace with the changing needs of today's digital consumer and employee.
- Overcoming the inertia is daunting, with insurers eager to protect their legacy revenue streams as well as insulate the core business from regulatory risk. That's why many insurers are looking towards models for innovation that give them the agility they need to rapidly build (or buy) and deploy capabilities in areas such as the Internet of Things, AI and blockchain.
- These approaches allow them to attract young and digital talent and to overcome the resistance to change in organizations with conservative cultures, accelerating digital transformation and addressing the ageing of the workforce. Some insurers are creating innovation labs or red teams to nurture their next generation of digital talent and solutions. Others are partnering with technology companies to build innovative digital-first products and move into new markets.

SPINNING OUT DIGITAL VENTURES

Many are spinning out their digital ventures as new companies to give them the liberty to pursue disruptive business models free of legacy technology and processes.

Allstate, for example, has launched a transport analytics startup called Arity to leverage its 20 billion miles of driving data and more than a million active telematics connections.[33] The company will sell risk- and usage-based telematics solutions to automakers, ride-sharing companies and even traditional competitors.

There is also a surge in insurtech venture capital investment from leading insurance incumbents such as Allianz, AIG, AXA, China Life, John Hancock / ManuLife and USAA.[34] In 2016, deals involving insurance tech startups climbed 42 percent to $1.7 billion across more than 170 transactions.[35] Transactions by insurers' venture capital arms featured heavily among them.

XL Innovate invested in Slice Labs, which provides coverage on-demand for ride-sharing drivers and home-sharing owners. MassMutual Ventures, Transamerica Ventures, and AXA Strategic Ventures, meanwhile, invested in the insurance-comparison portal PolicyGenius.[36]

France's AXA Group, the winner of the Efma-Accenture Global Innovator of the Year award for 2016, fosters innovation through diverse programs.[37] It runs an internal initiative to crowdsource business ideas from employees, while its lab focuses on detecting emerging digital trends and building strategic partnerships with global digital leaders. The company also has an insurtech incubator and a venture capital fund that invest in disruptive and innovative customer experiences.

of insurance executives believe leading organizations will seamlessly blend their internal and external workforces into a borderless enterprise within five years.

100-DAY **PLAN**

1. Task a talent marketplace transformation sponsor to define a company-wide talent marketplace strategy, and to establish measurable goals for improving agility and workforce opportunities.
2. Launch a cross-functional team to define governance and HR policy, identify the relevant and allowable technology tools, and manage legal issues for your corporate blended workforce strategy.
3. Start identifying pilot opportunities by interviewing business leaders within your organization to determine which groups, projects, or products are most in need of gaining agility in their workforce and skills.
4. Establish key performance indicators to track how the talent marketplace transformation is advancing broader business priorities for your organization. Communicate these data points with stakeholders on a regular basis.
5. Engage with freelance labor platform providers as your potential partners for pilots. Start understanding their know-how, offerings, and enterprise customer success stories.

365-DAY **PLAN**

1. Home in on areas of the business where the work is already remote, externally sourced, highly variable, cost sensitive, or driven by specialist skills. Use this as a first pilot to engage external freelance labor markets and platforms.
2. Launch an internal competition to be the first group to assemble a team entirely from an internal labor marketplace. Track the progress of this team, capture lessons learned throughout the process, and share them with internal stakeholders. Launch a slightly larger second phase. Continue to iterate and expand.
3. With lessons learned from both pilots, define a formal governance structure to manage freelance worker policies and best practices.
4. Armed with a formal governance structure, policies, and best practices, work toward blending the internal and external strategies with a goal of erasing the boundaries between the internal organization and the external ecosystem of labor platforms.

WORKFORCE MARKETPLACE **PREDICTIONS**

1. In five years or less: Compared to traditional full-time employment, talent marketplaces will **provide workers with improved earning opportunities,** more rewarding work, secure benefits, and respected credentials.

2. Within five years, most industries will have new, dominant leaders with **business structures based on small cores and powerful ecosystems.** Corporations still carrying legacy bureaucratic models will experience deterioration of market power.

3. In the next five years, on-demand labor platforms will emerge as a **primary driver of economic growth** in developed and emerging economies worldwide.

DESIGN FOR HUMANS

Inspire New Behaviors

Technology design decisions are being made by humans, for humans... technology is adapting to how we behave, to learn how to enhance our lives.

Technology is rapidly shrinking the gap between effective human and machine cooperation. With maturing AI tools and Internet of Things interfaces in the connected home, car and workplace allowing organizations to gather, analyze and act on customer data in real-time, insurers can begin to account for individual human behavior.

The result? Carriers have powerful opportunities to move beyond simple personalization techniques in functions such as marketing to offering their customers tailored 'living services' that are aligned to their personal and workplace behaviors and goals. As they tap into masses of data about how customers live and work, they can turn traditional relationships into true partnerships.

Insurers suddenly have a potential level of insight they've never had before: an insight into how people think, what they want, and how they react. As a starting point, they will be able to shift from pooling and pricing risk based only on historical data to automatically assessing and pricing risk directly, individually and in real-time.

What's more, there is an opportunity for insurers to move beyond simply providing customers with insurance cover. They can also provide them with real-time services and risk management solutions that address their real goals—all driven by adaptive technologies and interfaces that interact with customers and employees in a more natural, human way.

And they can understand which incentives will motivate positive behavior change in customers' behavior. This opens opportunities to reduce claims while strengthening their long-term relationships with customers.

of insurers agree that organizations that tap into what motivates human behavior, and design the customer experience accordingly, will be the next industry leaders.

A GREAT STEP FORWARD

For insurance, more than many other industries, this is a significant step forward. Most insurers seldom interact with customers outside the sales, renewal and claims processes; many don't own the customer relationship because their intermediaries do. The new wave of mass personalization technologies and interfaces gives them an opportunity to make their brands a bigger part of customers' everyday lives.

We have already seen the start of this evolution in auto insurance, where many carriers use vehicle telematics data to adjust premiums to customers' actual driving rather than just their driving history and the histories of similar drivers. 'Pay as you drive' insurance lowers premiums for people who don't drive many miles; 'pay how you drive' models take driving behaviors such as speeding and sharp braking into account.

Many carriers are now looking at the next step—'manage how you drive', where they coach drivers to improve their driving habits. One could envisage, in a few years, pay-as-you-go insurance that uses smart sensors to detect when a vehicle or other asset is in use and automatically to place and price coverage based on factors such as time of day, location, asset status and information about the insured's claims record.

In future, insurers might partner with companies such as Mobileye, which provides a collision avoidance solution that uses a vision sensor to keep an eye on the road and warn drivers of potential danger.[38] Thus, in addition to providing insurance theft and collision cover, insurers and ecosystems they're part of could play a role in keeping customers safe as they drive.

of insurers agree that organizations need to understand not only where people are today, but also where they want to be.

This could one day even extend to using biometric data to respond in real-time to the needs of a driver or passenger. According to Frost & Sullivan, by 2025 one in three new passenger vehicles could include features such as fingerprint, iris, voice and gesture recognition, as well as heartbeat, brainwave, stress, fatigue, facial and pulse monitoring.[39]

Similar trends are playing out in other segments of the insurance market. Silicon Valley insurance startup Trōv turns on-demand insurance for consumer electronics into a lifestyle app. Its customers can insure single possessions for as long or as briefly as they like (down to the cent and the second) with a swipe on their smartphones.[40]

Items are valued using live data and the app keeps an inventory of the insured's items, even sniffing out invoices for new purchases from the user's inbox. Customers file claims with a chatbot that uses contextual verbiage to collect date and location information, a description and images of the claim. AXA has partnered with Trōv to launch an on-demand, mobile-first service aimed at millennials in Britain.[41]

PERSONALIZED SERVICES IN THE HOME

Meanwhile, home insurers such as USAA, American Family,[42] Liberty Mutual and State Farm in the US , and AXA[43] and LocalTapiola[44] in Europe, are looking to connected home technologies to personalize premium setting and help customers avoid claims in the first place. Home owners could be incentivized for good habits such as switching the alarm on, locking the doors, and switching heating and stoves off when they are not around.

They could also receive alerts about maintenance issues such as moisture levels that might predict a burst pipe or even notifications when a child or elderly relative has not come home by a certain time. In partnership with HomeServe, Aviva in the UK pays to have a sensor installed on its customers' incoming water pipes that can detect even tiny leaks. HomeServe will repair these small leaks before a pipe floods the home, triggering serious damage and a large claim.[45]

In life insurance, some carriers are now looking to help clients reduce health risks with new digitally-based services. LocalTapiola in 2015 launched a Smart Life product that combines financial cover with fitness tracking and health coaching to help people lead healthier lives. Over 80 percent of the participants say they have improved their lifestyle as a result.[46]

Europ Assistance's Connect et Moi fragile care offering uses a smart box in the home to learn your daily rhythm of life from motion detectors and other sensors. It can send automatic alerts or help when there is a deviation from your usual routine; for example, if you have spent too long in the bathroom without moving. It even identifies warning signs of fragility—the occupant not using the kitchen enough might warn of undernourishment and not going out enough may signal social isolation.[47]

As for commercial insurers, the new technologies offer an opportunity to partner with customers to help them avoid business losses and interruptions. They could use sensor data for usage-based or variable insurance pricing—insurance premiums for commercial shipping based on cargo, weather and the route chosen, for example.

Preventative maintenance of industrial equipment in mines, plants and factories—guided by sensor data and intelligent automation—might help reduce insurance claims for damaged equipment or business interruption. The Hartford Steam Boiler Inspection and Insurance Company (HSB), part of Munich Re, is helping other insurers do just that.[48] It has introduced an Internet of Things based turnkey service for insurers that uses sensor technology to remotely monitor business equipment and facilities. In a pilot with Church Mutual Insurance Company, the service saved customers more than $500,000 by avoiding leak damage resulting from frozen pipes.

of insurance executives agree organizations transform from provider to partner by understanding customers' objectives and designing tools to meet those objectives.

PREPARING FOR A LARGER CUSTOMER JOURNEY

Many of these applications are just the start. To take it to a higher level, insurers will need to make fundamental changes to the way they do business. This stretches from architecting their systems, to better understanding behavior, to rethinking their interactions with customers and employees, as well as seeing products and services take on new roles as pieces of a larger customer journey.

In addition to shifting toward an experimental approach, companies must commit to transparency as they begin to respond to human behavior. Accenture research shows that 57 percent of insurance customers say they would be willing to share more information with their insurer in return for added benefit; 64 percent say it is important they receive more personalized advice.[49]

Insurers' primary role is no longer to drive people toward a product or service, but to partner with customers to reduce risks and improve outcomes at home, at work, or in their vehicles. Their new goal is to help define a path that people can follow to reach their goals, whether those are to leave a legacy for their families, ensure they have access to safe transportation, safeguard precious possessions or make sure that their factory production lines keep running smoothly.

The leaders of the future will be there for people and businesses to "help life go right", to borrow a phrase from State Farm.

"To build a constant relationship with your customers, you can't simply sell contracts and manage claims. You need to live alongside your customers and offer much more: prevention, protection, assistance. To do this in a way that is relevant and gives value, you have to use connected objects and big data for bespoke products and services that are contextualized... the right thing at the right moment."

Yves Caseau, Head of AXA's Digital Agency[50]

100-DAY **PLAN**

1. Enumerate the journeys your customers and employees take with your company, products, and/or services. Indicate the points on these journeys where engagement with your company begins and ends.
2. Identify the human behaviors that contribute to positive and negative outcomes customers or employees experience when interacting with your technology channels.
3. Catalog the data you already collect, could collect (but presently do not), and cannot currently collect that offers insight into customer behaviors and decision-making.
4. Using the customer behavior insights that you currently possess, plan a pilot to offer a behavior-personalized experience with an existing product or service.
5. To support conducting behavior-based A/B research with customers, draft a code of data ethics for such experiments.
6. Establish a strategic vision for making your technology products and services more goal-oriented.

365-DAY **PLAN**

1. Identify at least three business cases for for maximizing behaviors that promote positive outcomes in existing and upcoming products.
2. Using the journeys previously enumerated, work with strategy and product teams to uncover opportunities for improving the quality of outcomes that customers and employees receive with your company's guidance.
3. Identify key organizations that engage with your customers or employees before and after your company's role on each journey. Establish data sharing agreements with these organizations to further enrich your business's understanding of behavior across a journey.
4. Finalize your code of ethics and begin performing behavioral studies to understand and improve the ways your technology elicits, or fails to elicit, specific human behaviors.
5. Challenge product teams to use behavioral insights to help individuals realize unique goals.

DESIGN FOR HUMANS

PREDICTIONS

1. Within five years, a set of Global 2000 companies will begin **hiring employees** based not only on self-reported experience, but also on behaviors exhibited during previous roles and how individuals handled themselves in certain situations.

2. In five years or less, governments will **collaborate with businesses to drive sustainability** shifts in societal behavior. Energy efficiency, CO2 reductions, and landfill diversion will be the first targets.

3. By 2022, multinational organizations will introduce **employee-facing technologies** that can identify when a worker is frustrated and then alter the tone and style of feedback or guidance automatically delivered to the worker.

4. Within five years, a Global 2000 company will **lose significant market share** due to a behavior-manipulation scandal.

THE UNCHARTED

Invent New Industries, Set New Standards

To succeed in today's ecosystem-driven digital economy, businesses must seize opportunities to establish rules and standards for entirely new industries.

From technology standards, to ethical norms, to government mandates, to the social contract, a wide scope of rules still needs to be defined for the ecosystem economy. Emerging digital ecosystems are transcending disparate markets to create new industries—but risk management must be embedded into ecosystems if they are to win support from consumers, businesses and governments.

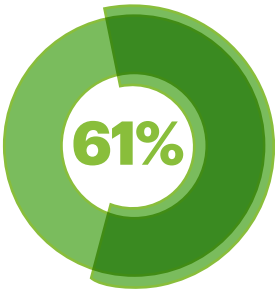
Organizations and entire industries are seeking to understand, manage and reduce the risks of a range of disruptive trends from precision agriculture to factory robotics to the sharing and gig economies. When it comes it technologies such as self-driving vehicles, regulation and safety standards have yet to be set in concrete.

This is all an opportunity for insurers to engage in the transfer of new risks and to help spur adoption of an exciting technology that will profoundly change the world over the next decade. Insurers could help define civil and criminal liability between driver and manufacturer, according to the level of automation at the time of an accident.

Insurers that aren't coming to grips with the implications of such shifts will find themselves left behind by impatient ecosystem partners, with companies like Tesla setting the pace and making the rules. Every car Tesla builds is 100 percent electric, and comes with hardware to make it autonomous; enabling the feature simply requires regulations to be established and a company-issued software update.[51]

Tesla is starting to offer customers in Asia a package that includes in the purchase price the cost of insurance and maintenance. Tesla CEO Elon Musk says he wants to work with carriers, but will insource instead if insurance providers aren't offering cover tailored to the lower risks of Tesla's electric cars.[52]

Also think about the gig economy, and how the growing use of freelancers on workforce platforms is changing the nature of insurance that employees expect and employers provide. Bunker, a San Francisco-based insurance technology startup, aims to makes it easier for gig workers to access appropriate insurance while helping employers understand and apply appropriate levels of insurance to the contingent workforce.[53]



of insurers agree the regulatory environment for their industry or business is outdated.

PARTNERING WITH **STAKEHOLDERS**

Today's successful platform organizations are not only blazing a new trail in products and services, they are also setting the guideposts for it.

Winning insurers will be those that step up and help define the rules and risk management practices of a new digital industry, in partnership with regulators, standards bodies, consumer protection organizations, open source communities, and other ecosystem stakeholders.

Those that take a lead will find a place at or near the center of their new ecosystem, while followers will land on the periphery. There is much work to be done, since regulators and governments are struggling to keep up with the pace of innovation. In some cases, a new industry's products, services, or value chains will raise new ethical questions.

Blurring lines between industries mean the rules for an ecosystem must be written to both consider and apply to every partner—no small feat given the varied capabilities and demands of stakeholders in emerging industries. The ripples created from new digital industries can turn into disruption at all levels of society.

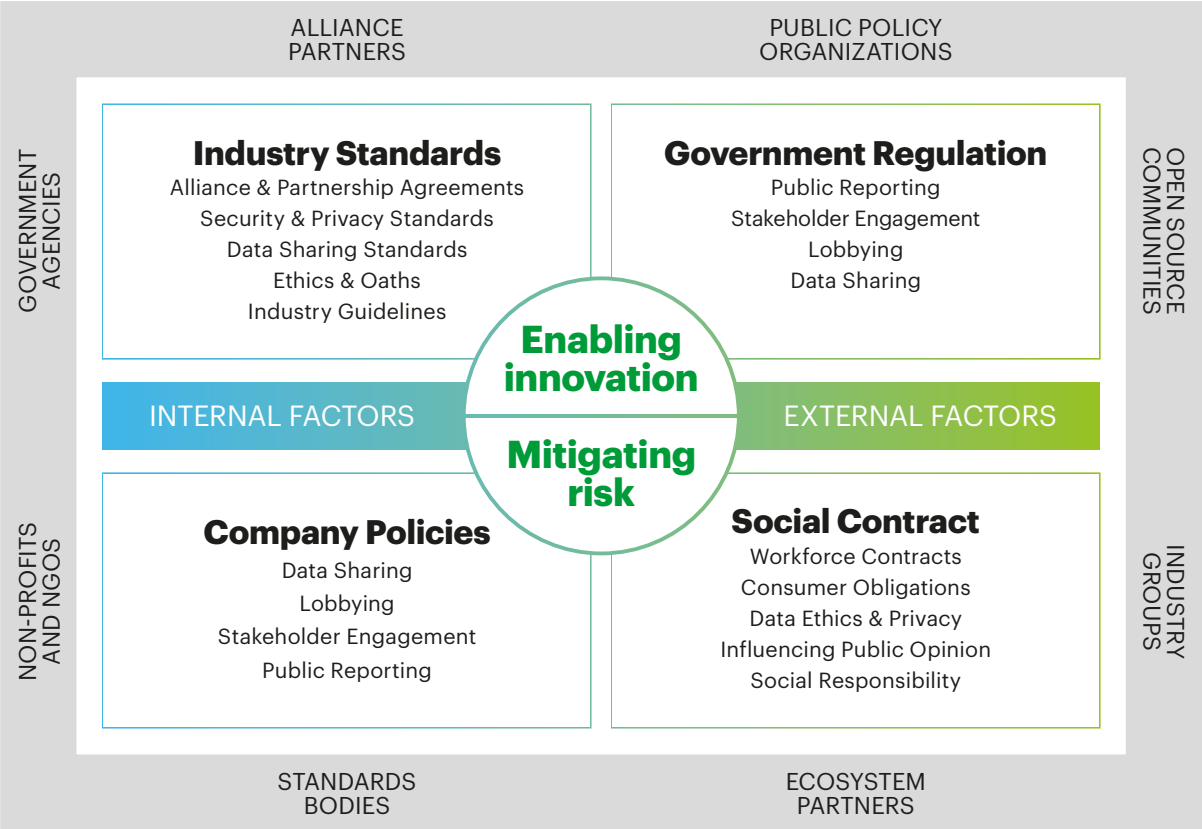
Therefore, insurance leaders must consider digital trust (security, privacy, and digital ethics) as core to any digital industry strategy. They won't just be implementing governance strategies through offline activities carried out by the likes of boards and committees; they'll be digitally replicating these approaches by embedding rules and standards within technologies themselves.

of insurers agree that their organization is entering new digital industries that have yet to be defined.

Insurers face competition from digital companies to set new standards; in some cases, they may choose to partner with insurtech companies rather than take the lead themselves. Technology companies such as Accuscore[54] and Verisk Insurance Solutions[55] are trying to interpose themselves as the data link between insurers and consumers who drive connected cars. The aim is to promote 'level playing field' standards for usage-based insurance in the automotive and insurance industries.

Those that take a lead will find a place at or near the center of their new ecosystem, while followers will land on the periphery.

New ecosystem for digital industry pioneers



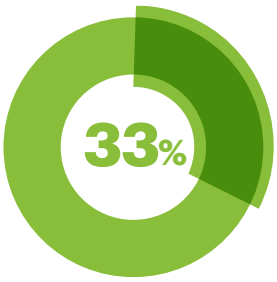
BLOCKCHAIN SOLVES AGE-OLD PROBLEMS

The most mature of the emerging technologies for embedding rules into technology and business processes is the distributed database known as blockchain. Blockchains deliver built-in solutions to many historical challenges of governance: transparency, a guarantee that records have not been changed (immutability), and the ability to operate in a distributed fashion. This offers opportunity and threat for insurance incumbents.

Visibility of balances, transactions and asset ownership might mean that intermediaries can be cut out of the insurance process, with the resulting efficiencies passed on to the insured and the insurer. Blockchain could also underpin a relationship of trust between individuals or businesses seeking insurance and others willing to insure them. A peer to peer exchange could provide the technology needed to manage underwriting, premium collection and claims as a pay-for-use service.

Insurers are starting to examine what blockchain could mean for the industry and other sectors with which it interacts. Aegon, Allianz, Munich Re, Swiss Re and Zurich last year agreed to cooperate on a blockchain proof-of-concept for inter-group retrocessions. Their BI3 consortium explores whether blockchain technology can be used to develop standards and processes for industry-wide usage and to catalyze efficiency gains in the insurance industry.[56]

The project has added new members since the announcement, including Liberty Mutual, Sompo Japan Nipponkoa, the Reinsurance Group of America, Hannover, Generali Group and SCOR. The group is advancing development on a shared platform for exchanging contracts, and will test a prototype this year. The insurers could spin the platform off into a separate company for commercial use next year or later.[57]



of insurers are planning to use blockchain in the next two years; another 36% have it on their agenda.

Smart contracts, often implemented using blockchain technologies, offer an automated way to enforce a contract whether the counter-party is trusted or not. Smart contracts design-in the rules for an exchange of value and can be self-exercising or self-enforcing as a situation demands. Allianz Risk Transfer has already successfully piloted blockchain-based smart contracts to handle catastrophe swaps and bonds.[58]

New technological solutions like these that address the historically cumbersome challenges of governance, accountability, and digital trust will continue to emerge. With the relentless pace of change across industries, carriers must decide how to use them to help shape the new rules of engagement for the emerging digital ecosystem.

Blockchains deliver built-in solutions to many historical challenges of governance: transparency, a guarantee that records have not been changed (immutability), and the ability to operate in a distributed fashion.

A new arsenal of tools

TECHNOLOGY	DESCRIPTION	GOVERNANCE	BENEFITS
Blockchain	The blockchain is a secure transaction ledger that is shared by all parties participating in an established, distributed network of computers.	• Provides unprecedented levels of transparency • No need for any single, central authority • Self-reconciling ledger • Single source for 'true data'	• Forensic traceability • Participants in a transaction must sign with a private encryption key
Smart contracts	The facilitation, verification, or enforcement of the performance or negotiation of a contract by computer protocols that makes a contractual clause unnecessary.	• Rules for exchanges of value are designed-in (with self-reconciling features) • Can be self-executing and/or self-enforcing	• Removes the need for a trusted third party to act as a governance/enforcement body
Differential privacy	A statistical technique that adds predictable amounts of noise to data, protecting the privacy of individual data subjects while preserving the accuracy of the insights derived from a large group of data subjects.	• Can guarantee anonymity to data subjects, enabling privacy controls that might be required by strong governance	• Sought by firms looking to accept accountability for their data subjects' privacy
Homomorphic encryption	Ability to perform data exchanges and transformations exclusively with encrypted data, only decrypting it when a person needs to see a result.	• Storing datasets in fully homomorphic repositories removes all chances for unplanned disclosures • Only those entities with a private key can query the database, run analytics on the data, and see results	• Implementers of homomorphic encryption recognize the risks of improper data disclosure

100-DAY **PLAN**

1. Create a stakeholder map for each industry in which your company operates and catalog the ecosystems within these industries.
2. Make a list of ways your products and services influence society. Build a conscious strategy for influencing the social contract with a governance structure that ensures responsible and ethical influence.
3. Take inventory of data inputs to your organization. Focusing on areas where you receive personally identifiable information (PII), or where metadata could generate PII, enumerate the potential risks to highlight areas where new governance may be needed.
4. Highlight areas of innovation you're engaged in where improving or updating government regulation or industry / ecosystem rules would help to encourage innovation or economic growth.
5. Create a team to work with regulators at local, regional, and/or national levels. Efforts should focus on education, information sharing, and responsible growth of new industries.

365-DAY **PLAN**

1. Using the ecosystem catalog, identify the intersection of the industries you operate within, where you're growing, and which ones have the most opportunity for new ecosystems. Build a strategy for starting a new ecosystem to complement and accelerate your growth into new markets.
2. Publish your governance model for public inspection, and begin implementing your strategy. Concentrate on recognizing the influence you already have and optimize for the behaviors you want to encourage.
3. From your data input inventory, pilot systems that make use of embedded-governance technologies: differential privacy, homomorphic encryption, and blockchain-based solutions.
4. Select a single initial area of innovation to engage with government regulators. Begin with individual conversations with multiple stakeholders.

THE UNCHARTED **PREDICTIONS**

1. Within three years, businesses with mature digital strategies will operate across currently siloed industries such as Tesla does today. For these companies, **industry boundaries will vanish,** and each new endeavor will amplify disruption.

2. By 2020, there will be **entire ecosystems requiring the use of smart contracts** to participate.

3. Within five years, new performance-based contracts—taking the form of 'if/then/else' between two or more parties—will exclusively be **smart contracts that self-govern and self-execute.**

4. In five years' time, there will be numerous instances globally where **governments will cede rule-making authority** to industry groups or, minimally, enact regulations that were designed by an industry consortium.

CONCLUSION

THE PATH TO PARTNERSHIP

The path to leadership is in amplifying people, on a global and individual scale.

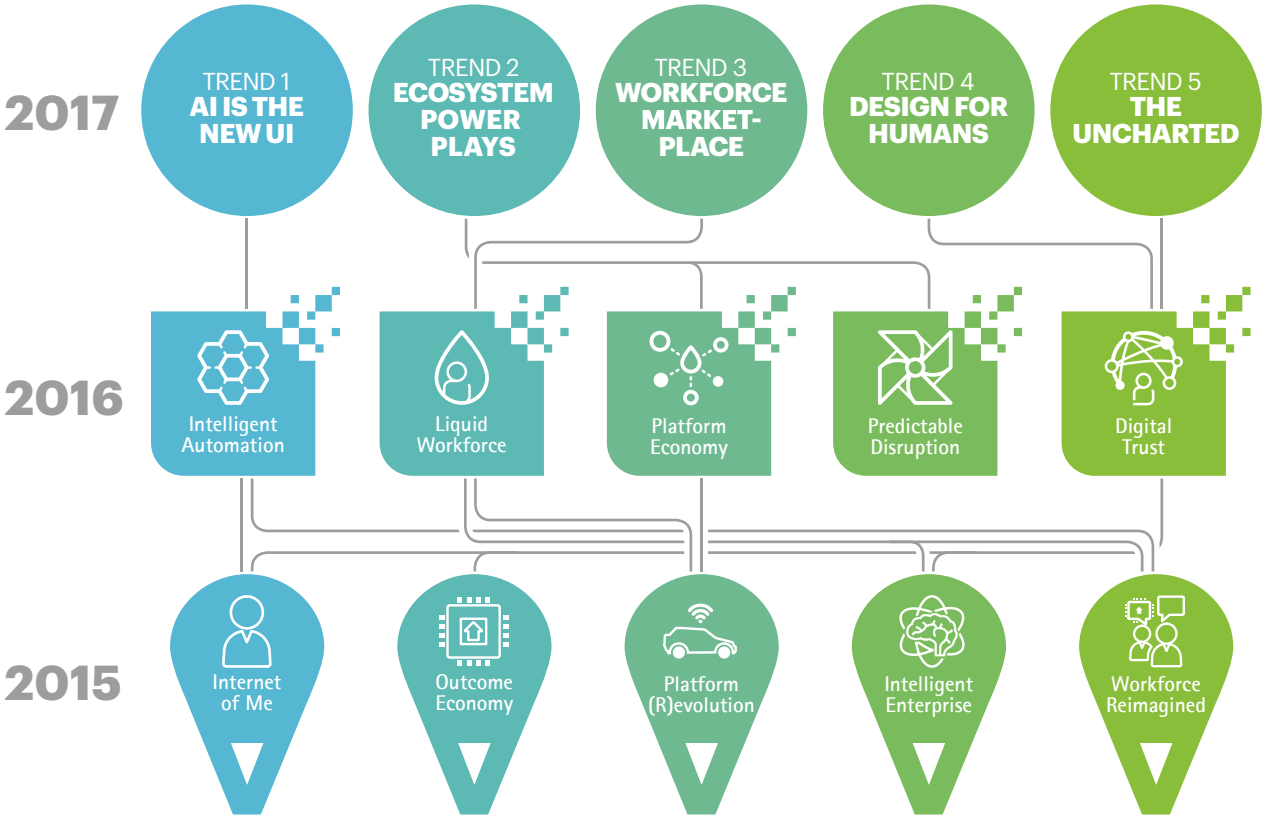
By enabling people via technology, insurers can create new opportunities that are both grand and granular. They can leverage the power of AI, the Internet of Things, big data and other technologies to deliver hyper-personalization to their customers—creating new products and services that not only compensate customers for loss but also help reduce the chance of incurring a loss in the first place.

At an industry level, these new technologies could help insurers to reinvent their businesses for an era of persistently low interest rates and an age where new technologies such as autonomous and connected vehicles or precision agriculture significantly will reduce the number of claims, in turn lowering risks and premiums. This is about creating new revenue streams, transforming the cost curve and finding a new role for insurance in a changing world.

Yet insurers are keenly aware that they cannot move into this new world alone, but will need to form part of ecosystems if they are to succeed. Agents and other intermediaries, customers, the contingent workforce, venture capitalists, technology companies, insurtech startups, and organizations in adjacent industries such as automakers, healthcare and home security will all be partners of the digital insurer of the future.

The digital insurance leaders of the world are already starting their journey to make the big plays; by empowering people with more human technology, businesses will transform the relationship with them from provider to partner. Through this process, they'll also transform internally. By helping people reach their goals, these new partnerships will help companies cement a place in the next evolution of society.

Technology Vision trend evolution



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ABOUT THE **TECHNOLOGY VISION**

Every year, the Technology Vision team collaborates with Accenture Research to identify the emerging IT developments that will have the greatest impact on organizations in the next three to five years. The process starts by gathering inputs from the Technology Vision External Advisory Board, a group comprising more than two dozen executives and entrepreneurs from the public and private sectors, academia, venture capital, and startup companies.

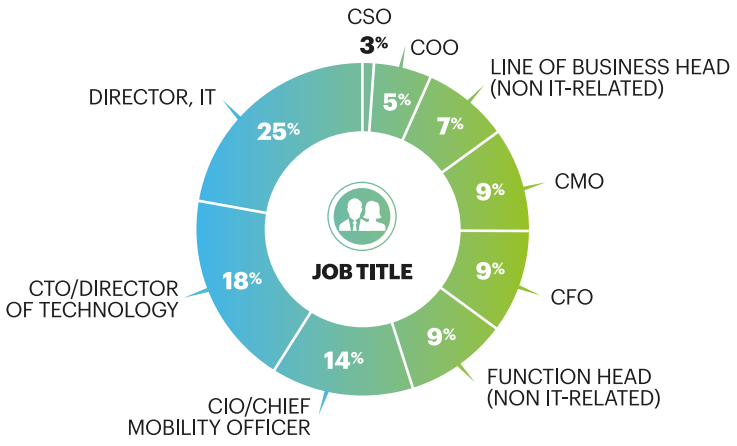
The Tech Vision team also conducts interviews with technology luminaries, industry experts, and Accenture business leaders. To supplement the cross-industry findings with industry-relevant insights, we tap into the expertise of Accenture's dedicated insurance research team and insurance subject matter experts.

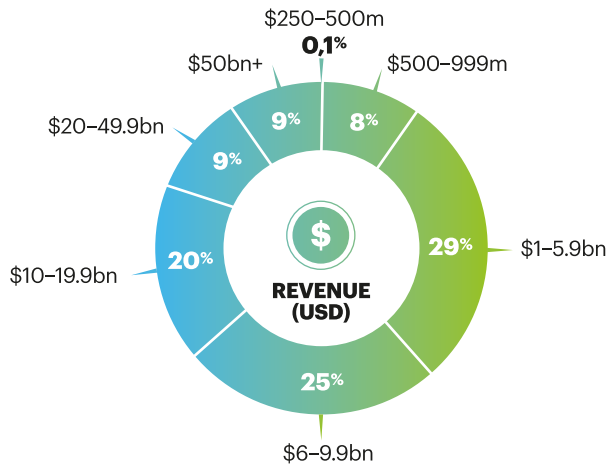
For the third year running, we conducted a global survey of more than 5,400 business and IT executives across 31 countries to understand their perspectives on the key technology challenges they face, and identify their priority investments over the next few years. The insurance sample this year included 563 respondents from across the world.

TECHNOLOGY VISION 2017 **SURVEY DEMOGRAPHICS**

30 COUNTRIES SURVEYED

ARGENTINA	FINLAND	JAPAN	SINGAPORE	UNITED KINGDOM
AUSTRALIA	FRANCE	MALAYSIA	SOUTH AFRICA	UNITED STATES
AUSTRIA	GERMANY	NORWAY	SPAIN	
BRAZIL	INDIA	PORTUGAL	SWEDEN	
CHILE	INDONESIA	QATAR	SWITZERLAND	
CHINA	IRELAND	RUSSIA	THAILAND	
DENMARK	ITALY	SAUDI ARABIA	TURKEY	





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