Risk Matters

A SEMI-ANNUAL PUBLICATION | SPRING 2018

RC ANSWERS:
Cyber Myths Exposed

Meet Our Featured Risk Leader: **Noelle Codispoti**

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SPRING 2018

Risk Cooperative

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Risk Matters

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Risk Matters is published semi-annually by Risk Cooperative to move risk from being a cost to becoming a catalyst for change, new initiatives and greater resilience around the world. With this and our latest curated content, we aim to advance the standards of practice of the risk and insurance profession.

Foreword

After climate change, pandemic threats and severe income inequality, the erosion of public trust may be one of the world's greatest challenges. Where trust falters, organizations face a complex backlash from their key communities. Adapting an old adage, a slip of the foot you may soon recover, but an erosion of trust you may never get over.

Public and private institutions are grappling with this global trust deficit, which has most recently embroiled historically activist firms like Starbucks and erodes the Teflon from firms like Facebook, among others. Expanding the lens of public trust to the societal level, it is not surprising that we are seeing a wave of social polarization around the world. This polarization corresponds to a rising tide of political risk, the return of economic nationalism (leading to the growing prospect of trade wars) and a slip past political partisanship to something akin to tribalism. Restoring trust is at the center of all of these challenges and the right blend of leadership, transparency, accountability and technology are needed at all levels to arrest this decline.

In this issue of Risk Matters, we curate a selection of articles and insights that highlight this trust gap and how to begin arresting it. Indeed, the newest project to come out of our lab, a blockchain-based risk registry architected in partnership with Bitfury and Beazley, is meant to "hardwire" trust in our back office operations. After all, an insurance policy is nothing more than a contract of utmost good faith.

On the frontlines of responding to risk, readiness and resilience, three words that inform everything we do at Risk Cooperative, making risk and insurance a compelling career choice, while addressing the talent shortage, is essential for the industry and the world. Our featured Risk Leader, Noelle Codispoti, knows this challenge better than most. Her leadership of Gamma Iota Sigma (GIS), which boasts of more than 25,000 alumni, 75 North American chapters and 4,000 student members, provides a future-certain career path to up-and-coming risk leaders. I am privileged to serve on GIS' board of trustees in my efforts to make risk "cool."

Dante Disparte is the founder and CEO of Risk Cooperative, and co-author of the book "Global Risk Agility and Decision Making"

Featured Risk Leader

Noelle Codispoti is CEO of Gamma Iota Sigma (GIS), the insurance industry's premier collegiate talent pipeline with a growing network of more than 4,000 student members and 25,000 alumni from chapters at over 75 colleges and universities throughout North America. Codispoti actively advances the discourse on recruiting, retention, and the future of the industry.

NOELLE CODISPOTI, CPCU, ARM
CHIEF EXECUTIVE OFFICER,
GAMMA IOTA SIGMA

Prior to taking the helm at GIS, Codispoti spent six years with ACE USA (now Chubb) in both the New York and Philadelphia offices, ultimately managing the General Partners Liability unit. She was honored by Business Insurance as one of its 2013 Women to Watch, by Insurance Business America as one of 2015's Hot 100 and one of its 2015 Elite Women, and by NAMIC as a 2017 Merit Society award winner.

Codispoti's involvement with GIS spans nearly two decades, well preceding her tenure as CEO. She received her BBA from Temple University, where she held various student leadership positions and achievements within GIS's Sigma Chapter.

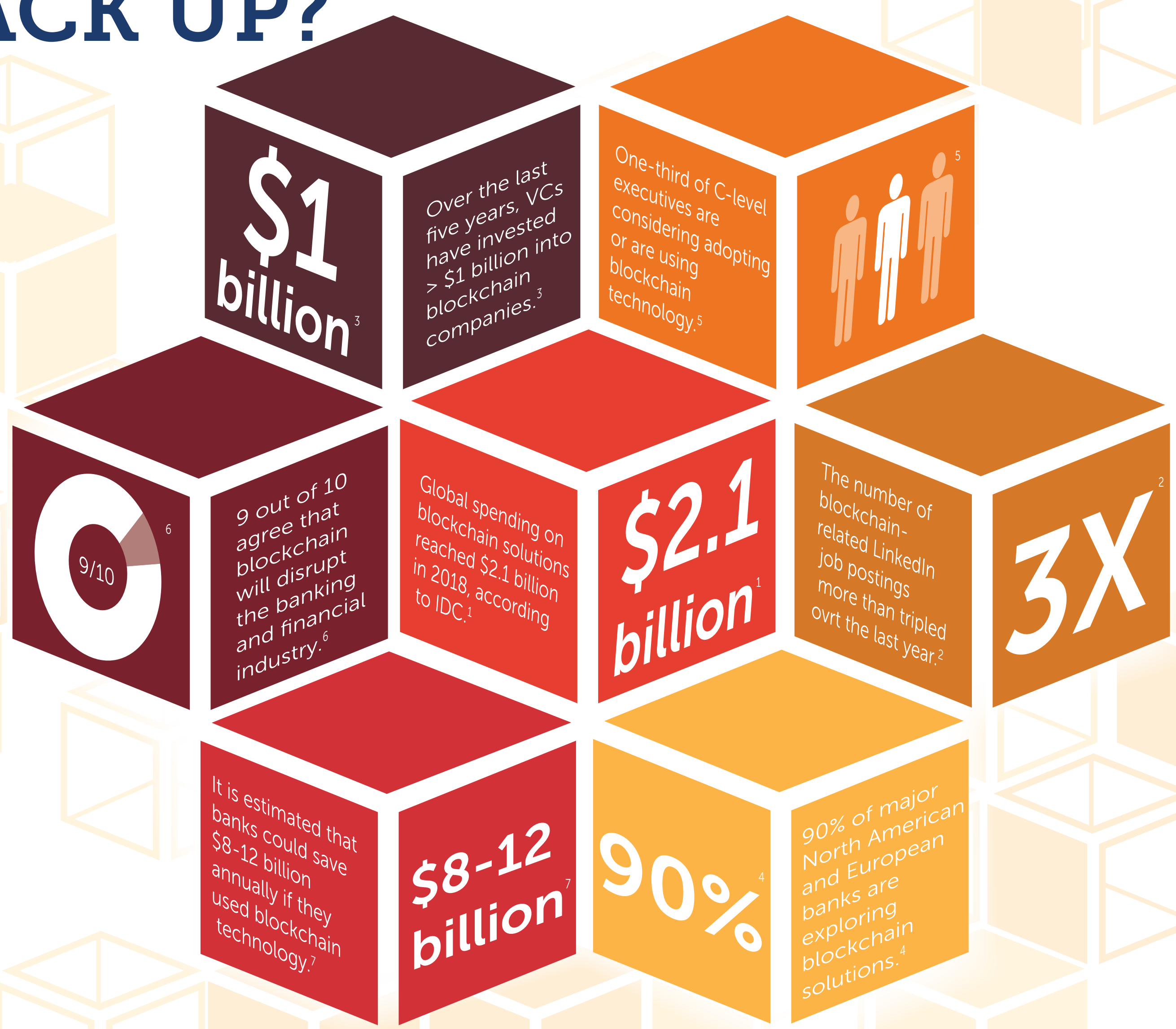
Since joining GIS as its first employee in 2011, she has implemented a successful growth strategy resulting in more than double the number of active chapters; increases in student membership by over 400%; establishment of 20 alumni chapters; and, a nearly ten-fold increase in industry support for GIS. Codispoti continues to lead GIS through significant transformation: she has catapulted the Annual International Conference into the premier event for the industry to engage and recruit top collegiate talent, while serving as a host site for both the Global Dive In Festival and IICF Week of Giving; launched an annual student survey on best practices in recruiting; instituted multi-faceted support mechanisms, including the Sustaining Partners program, which engages industry thought leaders in their commitment to and support of the next generation; recruited an engaged Board of diverse industry leaders; and pioneered groundbreaking initiatives like the GammaSAID Council (Solutions for Authenticity, Inclusion, and Diversity), a student-led group that fosters understanding of, establishes solutions for, and is a representative voice in shaping the industry's discussion, actions, and advances around diversity.

Codispoti is a frequent speaker at industry events, most recently as part of A.M. Best's CEO Town Hall during Insurance Careers Month. She serves as a member of the Griffith Foundation Leadership Council, the RIMS Student Advisory Council, the IICF Northeast Division-Philadelphia Chapter Board, and NAMIC's Project Leadership Task Force. She holds the CPCU and ARM designations.

Her tireless industry-wide collaborations and relentless mission to promote interest in the limitless career opportunities in insurance is the reason *Risk Matters* names Noelle Codispoti our Risk Matters Featured Risk Leader.

By the Numbers

BLOCKCHAIN: DO THE NUMBERS STACK UP?



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[7] https://expandedramblings.com/index.php/blockchain-statistics/

Summaries

BBC WORLD SERVICE: BUSINESS MATTERS | AIRED 12.14.17

Podcast hosted by BBC News
Originally published on bbc.co.uk

Business Matters covers global business news, with live guests and contributions from Asia and the USA. Dante Disparte has been featured on the program many times since 2015, including several recent appearances.

In December, he shared his views on a wide range of topics, including Brexit and multilateralism, Fed interest rate hikes, climate change and the newly launched Caribbean Climate Smart Coalition, as well as civic engagement in the U.S.

Listen to the Episode: https://www.bbc.co.uk/programmes/w172vth720d1j6n

AMAZON'S HQ2 BELONGS IN PUERTO RICO | PUBLISHED 11.11.2017

Written by Dante Disparte
Originally published on Huffington Post

The prospect of Amazon's HQ2 offers the struggling residents of *La Isla del Encanto* a once-in-a-generation opportunityr. Dante Disparte outlines 4 reasons why this choice also makes business sense for Amazon.

Read the full article: https://www.huffingtonpost.com/entry/5a067a8de4b0ee8ec369419a

BITCOIN: AN ASSET, CURRENCY OR COLLECTIBLE | PUBLISHED 11.28.2017

Written by Dante Disparte
Originally published on Forbes.com

In this Forbes column, Dante Disparte discusses how virtual assets are meeting the real world.

Read the full article: https://www.forbes.com/sites/dantedisparte/2017/11/28/bitcoin-an-asset-currency-or-collectible/#c6d33e1300ee

CITIES HELD FOR RANSOM—LESSONS FROM ATLANTA'S CYBER EXTORTION | PUBLISHED 04.02.2018

Written by Dante Disparte
Originally published on Forbes.com

Atlanta, home to the world's busiest airport and one of the most vibrant cities in the U.S., was recently the target of a crippling ransomware attack.

Read the full article: https://www.forbes.com/sites/dantedisparte/2018/04/02/cities-held-for-ransom-lessons-from-atlantas-cyber-extortion/#3d7ef1215996

Links to all RC published articles, interviews, and engagements are located under Insights on riskcooperative.com

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Featured Analysis

147 MILLION WORRY ABOUT THEIR IDENTITIES, ONE BILLION HAVE NONE | PUBLISHED 03.8.2018

Written by Dante Disparte
Originally published on Forbes.com

In a grim case of societal Darwinism mixed with tragic irony, 147 million people struggle to protect their identities due to the Equifax breach (which recently added 2.4 million additional victims to its toll), while more than one billion people on the planet have no such luxury. In a newly released report, issued by the World Identity Network, in collaboration with the United Nations and other partners, Dr. Mariana Dahan, euphemistically the Satoshi Nakamoto of identity, Dr. Alicia Carmona and Dr. Brad Blitz, shed light on the dark recesses where the stateless and faceless struggle for the essentials of humanity – an identity. Without basic personhood, essential services, such as healthcare, education and political presence, along with safe passage through the world's borders, consigns mostly women and children to the vile practice of human trafficking.

The report, Turning Invisible Children Into Invincible Ones, like its authors, is not content with being another sad statement of an intractable global problem, heavy on the heart but light on solutions. Instead, Dr. Dahan and her interdisciplinary team, call for a global competition to solve the identity challenge at scale in her home country of Moldova, the poorest in Europe. As with all lasting social innovations, entrepreneurs that are working on deeply personal problems can endure any array of setbacks and have infinite patience in achieving their goals. No stranger to the hardships of being a child without an identity, Dr. Dahan is leading a global call to action to meet the Sustainable Development Goal 16.9 of having 100% of the world's population bestowed with the dignity of an identity at birth by 2030.

The numbers and challenges arrayed against this goal are staggering. More than one billion people today have no identity. That is 1 in 7 people on the planet do not have the luxury of worrying about ID theft, like so many of us who are Equifax's collateral damage. This is a compounding figure by the more than 230 million children born into invisibility where their births are never recorded by no other cause than having lost the geographic lottery of life. Add to this list the stark reality that most of the world's identity systems, including in advanced economies like the U.S., are in effect operating on analog, alphanumeric models that are centrally stored and deeply vulnerable to fast moving digital risks. This centralized analog vulnerability, combined with the massive rolls of forced migrants, refugees and internally displaced people (IDPs), totaling more than 257 million according to the report, sets the stage for a daunting task – one made all the more complex and urgent due to the growing prospect of climate change refugees and large-scale human displacement. Indeed, by this measure, even "fortress nations" like the U.S. are not spared, as climate-displaced people from Puerto Rico and coastal states move elsewhere in the country by the hundreds of thousands.

What is lost among these large numbers, but not in this important report, is that the world's most vulnerable people, namely children, are particularly punished by the lack of universally acceptable and portable identities. 50 million children are in effect consigned to the margins of humanity, displaced from their home countries, left in the darkest shadows of exploitation and hopelessness. In the same way a country's soul is measured by how it treats its children, elderly and veterans, the failure of the international community to resolve the identity challenge for children should weigh heavily on our hearts and consciousness. Mercifully, entrepreneurs, business, civic and political leaders are taking this call to action seriously.

While technology alone is not a panacea for an issue as complex, polarizing and societally difficult as identity, it can play a pivotal role in achieving SDG 16.9 and ending the tide of human trafficking – where women and children comprise 70% of the victims. The call to action in the report is to harness the substantial ambition in the blockchain community in architecting and prototyping an identity solution at scale. The benefits seem to outweigh the risks in some of the models highlighted, including proposals from Bitfury, Ixo Foundation and ConsenSys, which all render a similar vision where a distributed ledger is used to capture an immutable identity, tracking key changes (e.g. border entry and egress) over time.

As with proposals to cure communicable diseases that espouse the simplicity of washing hands presupposing the availability of running water. Bringing in cutting-edge technology solutions to the world's frontiers, presupposes the availability of reliable and unfettered internet, electricity, authorities and custodians, especially for children. Critically, these items remain tragically scare and conspire to irrigate the root causes of the world's identity crisis. Alas, any progress that narrows the billion-person identity gap, even if it is imperfect, should be taken and with great urgency. For challenges this critical, the world should not let perfect get in the way of good.

We are now living in a world rife with complex man-made risks. In this world, where cyber threats can fester for many years sowing distrust in our most venerable institutions, including democracy itself, the concept of building "fortress nations" where our neighbors' plight is ignored is impossible and immoral. Indeed, Europe's migration crisis, which is exacerbated in no small measure by stateless and desperate people who are exploited by human traffickers, slave and sex traders, is made worse by the lack of portable identities. 230 million children born into the margins of society, is quite literally a breeding ground for the worst of humanity, from child trafficking, sex slavery, open air human markets, terrorism and much more. A modern world with an embarrassment of riches concentrated in a few lucky hands cannot stand idly by while 1 in 7 of us lack the basic decency of being born with something to lose. May we all be so lucky to worry about the loss of something we take for granted.

https://www.forbes.com/sites/dantedisparte/2018/03/08/147-million-worry-about-their-identities-one-billion-have-none/#1d16e0051857

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Featured Analysis

FACEBOOK BREAKS SILENCE | PUBLISHED 03.22.2018

Written by Dante Disparte and Chris Furlow
Originally published on Forbes.com

The coat of Teflon that usually shields Facebook and its affable leader, Mark Zuckerberg, who has matured into a techno statesman in the public eye, is beginning to wear thin. Facebook now joins a growing number of firms embroiled in a trust deficit with a case of reputation risk whiplash. But unlike an Equifax-style scandal, which was prompted by external factors and exacerbated by internal misdeeds, Facebook's eroding market confidence appears to be self-induced by 5 days of silence and lax third-party risk management. Reports of more than 50 million personal records being accessed by Cambridge Analytica and Aleksandr Kogan, a Cambridge University researcher whose personality quiz provided a backdoor to this data, is not only a terrible violation of consumer privacy, it highlights how trust (the new thrift of the modern economy), is hard to earn and easy to lose.

Although Facebook has been no stranger to global privacy and security concerns, it has largely survived past scandals unscathed continuing its unrelenting march to social media dominance with more than 2.2 billion monthly active users. This time, however, the nature of this massive privacy violation has people like Brian Acton, who Mr. Zuckerberg made a billionaire with the $19 billion acquisition of WhatsApp, committing the treacherous act of joining the delete Facebook campaign on that other controversial social media platform, Twitter and elsewhere. The scandal, which Facebook has been silent about until Mark Zuckerberg released a statement on the platform, has eroded shareholder value by 8% or $35 billion. While the stock will surely recover given Facebook's sheer dominance of the social media world, earning back consumer and regulatory trust will be hard fought.

Want it or not, Facebook has now become a protagonist on both sides of the Atlantic in the battle to restore trust in democratic institutions and privacy standards. Firms like Cambridge Analytica, with the grotesque videotaped admission from its crestfallen CEO Alexander Nix, made money in exploiting people's private information fueling election malfeasance in the U.S. and elsewhere. While Mr. Zuckerberg's apology tour is just beginning following his statement and planned interview on CNN, it will not be long before Facebook must heed calls for hearings with lawmakers and regulators in the U.S. and U.K.. These inquiries will dive deeper into third-party vulnerabilities on the platform, potential legal liabilities and other restrictions, which may challenge the firm's revenue model further eroding trust. The advent of GDPR, the EU's far-reaching privacy regulations, which take effect in May of 2018, along with the likelihood of an EU digital tax levied on firms like Facebook will only serve to compound Facebook's trust and compliance challenges. Critically, GDPR grants EU citizens the right to be forgotten.

While 50 million records is a rounding error for a firm of Facebook's network size, the nature and apparent ease with which these data backdoors were opened by third-parties will create lasting discomfort and scrutiny. The notoriously media shy Mark Zuckerberg is facing a tough challenge of restoring trust in the unwieldy and vast expanse of the social network he built but is now larger than him. For all the unwanted scrutiny of Facebook and its lax privacy and security standards, individual users must also look themselves in the mirror and question their digital naïveté about Facebook's commercial motives. Facebook, like so many private enterprises that are busy providing services they aim to monetize under the guise of "social utility," are best used by people who are open-eyed about the tradeoffs. In short, the 2.2 billion users who voluntarily made Facebook a global census bureau should not be surprised by efforts to sway them and make money based on their online behavior.

Where a redline was crossed, however, was when Facebook was subverted as an instrument of foreign electoral intervention and social sabotage at scale. While Cambridge Analytica is clearly one of the culprits of this social engineering, many other firms and nation-state actors, like the Russian-backed Internet Research Agency, partake in the type of micro-targeting that Facebook and its billions of users have enabled. The world's social network may have to replace its user and privacy statements with a new social compact that restricts advertising and micro-targeting from a wide range of third-party users on a wide range of themes. Indeed, Facebook, like other technology firms, has demonstrated that they can abide by self-regulation (and at speed) when they banned advertisements for initial coin offerings (ICOs), which have been prone to potential investor fraud risks. If only the same prudence was demonstrated during electoral cycles and in protecting consumer privacy. Until then, social network users, like voters, should weigh their conscience, use their judgement and proceed with caution.

https://www.forbes.com/sites/dantedisparte/2018/03/21/facebook-breaks-silence/#7e87f0225403

ONE THING IS CLEAR FROM DAVOS, BLOCKCHAIN IS OUT OF BETA | PUBLISHED 01.29.20187

Written by Dante Disparte
Originally published on Forbes.com

Under the decidedly grim moniker "creating a shared future in a fractured world," the world's elite gathered in Davos, Switzerland for the annual meetings of the World Economic Forum. Awaiting the arrival of President Donald Trump, delegates were regaled with prognostications about the state of the global economy and whether national retrenchment would signal the end of multilateralism as we know it. While Trump's remarks on the closing day of the Forum signaled that America first does not necessarily mean America alone, there was one sub-theme that echoed throughout the snow-covered mountains of Davos – Blockchain, Blockchain, Blockchain.

Blockchain, the distributed ledger technology that underpins Bitcoin's rise to prominence (along with nearly 1,500 cryptocurrencies), is slated to transform the world, or so its adherents proclaim. While Blockchain and digital assets were widely featured on the main stage at Davos, perhaps the most insightful conversations were taking place in standing room only events hosted by groups like the Global Blockchain Business Council, whose CEO, Jamie Smith, and chairman, Tomicah Tillemann, have emerged as global emissaries helping Blockchain go mainstream. Indeed, Jamie Smith has made it her personal mission to be the explainer-in-chief of this powerful technology so that more of the world can grasp its potential.

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A lofty agenda dominated these Blockchain discussions, which turned from emerging regulatory frameworks, such as Gibraltar's move to become the bona fide marketplace of choice for initial coin offerings (ICOs). To the EU Parliament's staunchest digital transformation advocate, Eva Kaili, who is working diligently to craft sensible legislation that does not stymie innovation, but encourages it. It is increasingly clear that digital assets and the distributed ledger technology that underpins them are not going away. Based on these market trends, Blockchain-based solutions may be entering a period of accelerated deployment across a wide variety of grinding problems, from financial inclusion to rural electrification among others. Indeed, the famed Peruvian economist, Hernando de Soto has taken to The Wall Street Journal heralding Blockchain's potential to eradicate poverty in a recent piece co-authored with Phil Gramm.

Turning to Blockchain opportunities in frontier and emerging markets, entrepreneurs such as Paula Guedes and her startup, Jobzi, is shedding new light on Brazil's job market and leveling the career playing field using Blockchain. Elizabeth Rosiello is revolutionizing the pan-African payments market with BitPesa, while serial entrepreneur Gabriel Abed, the founder of Bitt, is emerging as a veritable crypto-statesman through his work with Caribbean central banks. The war against opacity, friction and institutional mistrust, which is at an all-time low around the world, not only has some staunch adversaries in these entrepreneurs, they are armed with a powerful new tool in Blockchain. Just as emerging and frontier economies are leap frogging brick and mortar banking and fixed-line telephony, many of these countries will be the proving grounds for entirely new forms of trust-based governance and decentralized economic structures. Estonia's former Prime Minister Taavi Rõivas shared as much during his address highlighting how Estonia made it to the top of the leaderboard for national digital transformation.

Laurent Lamothe, the former Prime Minister of Haiti who presided over not one but two national catastrophes with the massive earthquake, which effectively leveled his country, to the cholera outbreak caused by UN peacekeepers, underscored how Blockchain can enhance government continuity and resilience. Indeed, the decentralized, off-premises nature of Blockchain registries makes the technology resilient by design and an ideal "seed vault" for critical information, such as land titles. Public sector leaders like Prime Minister Lamothe, Albert Isola, Gibraltar's Minister for Commerce and Nick Cowan, CEO of the newly launched Gibraltar Blockchain Exchange (GBX) were quick to advise that Blockchain-based solutions cannot live in a leadership vacuum. They, like other delegates, urged leadership for the full potential of this foundational technology to be harnessed.

Perhaps the most telling mind-shift was captured by Valery Vavilov, CEO of The Bitfury Group, when he indicated that with Blockchain we can move to a world where people are at the center of their assets, liabilities and personal data, rather than being in the periphery. Indeed, a growing number of entrepreneurs, like Nigeria's Julius Akinyemi, an entrepreneur-in-residence at MIT's Media Lab and CEO of UWIN Corp, who is working together with Sandra Ro, one of the chief architects of CME Group's Bitcoin futures offering, are leveraging Blockchain to pull stranded assets in Africa into the market. These entrepreneurs realize that Blockchain can do to value transfer what the internet did to information sharing.

One thing is clear coming from Davos, Blockchain is out of beta and nowhere is this truer than in Asia, where firms like Chong Sing Holdings FinTech Group, whose CEO Phang Yew Kiat is an ardent Blockchain and digital transformation supporter. Mr. Yew Kiat's firm has successfully processed millions of banking and other highly regulated transactions leveraging Blockchain-based platforms. If the world is moving from analog to digital and from digital to decentralized, firms like Chong Sing are showing the value of leadership, tone at the top and rapid prototyping when it comes to harnessing Blockchain's potential.

Looking beyond financial services and digital identity, which are Blockchain mainstays, some of the more pioneering work is taking place with electrification, energy metering, fractional asset ownership and supply chain provenance. Herein, against the backdrop of endemic Weinstein-style harassment cases and gender governance failures, women are proving to be the most unrelenting leaders in the Blockchain community. Leaders such as Veronica Garcia, CEO of BitLumens is making "last-mile" gains in rural electrification by leveraging Blockchain to not only provide light, but to provide a veritable form of leasing and payment collection. PowerLedger's co-founder and chair, Jemma Green, proves that with Blockchain-based energy metering, an entirely new energy future is not only possible, it is here. Critically, these breakthroughs enable utilities and governments to rethink their roles, right-size their balance sheets and push for more energy diversification.

On supply chains and the provenance of goods and commodities, Leanne Kemp, Everledger's founder and CEO, is committed to resolving perennial blood diamond issues through a Blockchain-based registry. With this, she is at once solving one of the industry's most insidious challenges, while opening the door to making diamonds a tradable commodity for the first time. Blockchain's power of transparency and widescale trust, borne from its unalterable record keeping, are on pace to transform a number of supply chains, from precious metals and gems to food and agriculture. Perhaps with the advent of this technology, commodity producing countries will begin moving up the value chain.

With the doomsday clock inching two minutes closer to midnight and on the heels of an annus horibilis for risk, a technology that can sow the seeds of trust, reduce friction and pull stranded assets into the global economy on an unprecedented scale will help drive shared prosperity and resilience. The world will be well served by accelerating Blockchain's adoption.

https://www.forbes.com/sites/dantedisparte/2018/01/28/one-thing-is-clear-from-davos-blockchain-is-out-of-beta/#68998a2a9d4f

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Featured Analysis

WHERE BANKS STAND TO LOSE WITH BLOCKCHAIN INSURERS STAND TO GAIN

| PUBLISHED 02.20.2018

Written by Dante Disparte
Originally published on Forbes.com

As Bitcoin's price vacillates between a high of $20,000 and the current figure of $11,063, the most widely known cryptocurrency is not alone in the digital asset universe, nor is it alone in needing better risk management and risk transfer solutions. Indeed, Bitcoin is one of more than 1,500 cryptocurrencies, whose uses range from utility tokens attached to underlying technologies and firms the way stocks are tethered to listed companies, or digital fiat currencies backed by more traditional issuers, such as central banks. Across the entire asset class, however, the lack of universally acceptable insurance solutions continues to plague confidence among wary investors and operators. This lack of confidence often relegates cryptocurrencies to speculators, who themselves face a growing number of risks, often seeing up to $534 million in mysterious disappearances or massive crypto-heists, as was the case with Coincheck's NEM coin.

Contrary to crypto-sceptics, cryptocurrencies and in particular the distributed ledger that underpins them, Blockchain, fight against opacity, friction and middlemen. These same three attributes largely dictate how the banking and insurance industries operate, generate profits and establish their risk tolerance - or lack thereof, which explains the slow embrace of digital transformation among these traditional sectors. While all signs indicate that banking (particularly high volume undifferentiated processes, such as settlements or remittances) will face a wave of profound disruptions courtesy of Blockchain and cryptocurrencies, insurance and this new asset class can coalesce into a symbiotic relationship. Insurance and these technologies can enhance each other rather than erode value and trust - the new thrift of the digital economy. If an economy is an engine, capital is the fuel and insurance is the spark that can ignite new growth and risk taking.

At least this used to be the thesis underpinning risk innovation, as the Model T rolled off Ford's assembly at once heralding the motor age and the auto insurance industry. As commercial and space flight took off, the burgeoning insurance industry borrowed from its maritime roots to normalize the fear of flying with travel accident policies or normalize massive asset build up with broad, all risk property insurance and leasing solutions. Today, however, as the world moves from the Industrial Age, and beyond the digital age to the age of trust and decentralization, the $5.5 trillion insurance industry is perilously slow to embrace emerging technologies. Part of the apprehension is dictated by law, which usually lags new sectors or favors incumbents. For example, medical cannabis and dispensaries are largely unbanked and, as a result, uninsured for this very reason. As a result, cannabis operators sit astride imperiling cash hoards, for which crime and valuable papers insurance have been slow to respond to unmet market needs.

Ironically, insurance may have been the very first Blockchain-based sector, as the principle of mutualization that underpins the trade relies on utmost good faith, trust and a degree of decentralization or risk sharing. If insurers singularly rely on their comparatively low cost of capital for market relevance, it will be hard to escape the death spiral caused by complex man-made risks and technological disruption. Indeed, an insurance policy - not unlike fiat currencies - is not worth more than the paper it is printed on. Therefore, a rules-based approach is necessary to overcome mistrust and improve adoption. At its core, insurance is little more than the sum of many years of claims payments as well as the concept of collective witness that makes the market tick. My previous observations for how Blockchain can drive wholesale improvements in the insurance industry underscore the friction-fighting, trust-enhancing qualities of this foundational technology. But how can insurance enhance cryptocurrencies and Blockchain-based industries?

For one, insurers need to overcome their tepid, cross-armed response to Blockchain and cryptocurrencies. Events are underway bringing leaders from both sectors together, giving insurers a homecourt advantage in London, while moving from concept to practicality on Blockchain. The pervasive view that cryptocurrencies are singularly the remit of shady cyber criminals and sanction dodging regimes, such as North Korea, Russia or Venezuela, misses the broader market opportunity, where insurers can help normalize this asset class by bringing in much needed third-party validation and underwriting. Indeed, crypto-native companies like Bitfury are extending the law's reach in the dark recesses of the crypto landscape by shining a light with its newly launched Crystal software. After all, the difference between risk and uncertainty is that risk can be measured, uncertainty cannot. Uncertainty is much more perilous and is typically the spark that ignites bank runs or widespread panic. Cryptocurrencies are highly susceptible to mass hysteria and heightened risk perception, which explains why these assets have the highest implied volatility on the market. The rapid shift from bear to bull markets and back again is partly explained by the lack of a floor for cryptocurrencies other than zero. Ethereum's wunderkind co-creator, Vitalik Buterin, recently took to Twitter to admonish neophyte crypto investors of this risk. Hedging mechanisms, like a cyber FDIC, can help create a floor and broaden both adoption and acceptance of digital currencies as more than a hyper-volatile means of exchange or hoarding.

While system-wide hedging and risk transfer solutions may at present be a fool's errand since decentralized systems inherently have no counter-parties negating traditional insurance approaches. Nevertheless, a wide range of opportunities for insurers exist. Conceptually, some insurers are beginning to warm up to cryptocurrencies and Blockchain-based risks, although their movement is largely notional. These insurers are tapping crime and valuable papers policies (one of the oldest forms of coverage) to protect digital wallets and their custodians from theft or mysterious disappearance. However, the underwriting, scope of coverage and limits of insurance are not only onerous, they are often insufficient and inefficient. As a rule, insurers loathe speed, which is the only pace the crypto community understands. For insurers to fully apprise the opportunities in the decentralized economy they must untether from their traditional underwriting models that made them profitable with analog risks yet keep many an insurer awake at night with digital exposures, which more than 80 insurers have on their balance sheets with cyber policies. In short, following the annus horribilis in 2017 along with rising interest rates, insurers must begin taking risks of their own. Blockchain augments widely used operating models in the 330-year-old insurance industry and can help answer the question of whether it is a cost or a catalyst.

The comparatively nascent experience of writing cyber insurance offers some structures for how insurers can protect digital assets and decentralized sectors. While Blockchain and the Bitcoin protocol are resilient by design and thus far proving to be hack resistant, they are not risk free. A good cyber

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insurance policy is less about financial protection and more about response and forensic capabilities through a veritable digital fire brigade in the event of a claim. Ironically, when "hardening" their virtual holdings, Bitcoin and Blockchain billionaires are turning to traditional physical security measures, such as vaults, enhanced security details and encrypted, offline storage devices. These measures may mitigate virtual threats – allowing for forgetfulness and human error - yet they introduce a range of physical security risks, including the grim prospect of kidnap, ransom and cyber extortion. In these areas, the insurance markets have proven capabilities where the crypto community is uniquely vulnerable. As the adage goes, without risk there is no reward. If cryptocurrencies could become a trillion-dollar asset class with no centralized authority or systemic risk-transfer mechanisms, imagine what is possible as the risk-bearing industry begins to take risks of their own with cryptocurrencies and Blockchain?

https://www.forbes.com/sites/dantedisparte/2018/02/20/where-banks-stand-to-lose-with-blockchain-insurers-stand-to-gain/#1b5bd4dd8381

INVEST NOW OR PAY LATER | PUBLISHED 12.11.2017

Written by Dante Disparte
Originally published on International Policy Digest

Long-term asset holders, such as pension funds, sovereign wealth funds and insurers, hold their capital – and with it the retirement, security and educational dreams of their customers – in conservative financial instruments in perceptually safe markets. These investments are closely pegged to underlying asset classes that have historically proven to be safe, somewhat predictable and almost entirely held in mature, highly liquid advanced economies. Whether these are municipal bonds, commercial property or blends of mature domestic stocks, long-term asset managers are prized for their steady hands and unflinching commitment to a long-term investment horizon. This much is required by the investment mandate to protect, preserve and build wealth. This patient investment model, however, is being tested by the convergence of two broad trends for which long-term asset managers are ill equipped to address using today's tools and investment yardstick.

The first trend is caused by the diseconomies of scale under which long-term asset holders are laboring. Over the last 30 years' long-term asset holders have amassed more than $35 trillion in assets under management. This is more money than they are effectively deploying on a long-range risk-adjusted basis, as evidenced by the historically low or insidiously negative yields over the last 10 years. They also labor under a numerator so large that these asset holders have a shrinking number of places to hide from the long arms of risk and uncertainty and the anemia inducing effects of low interest rates.

The return of economic nationalism in Europe and the U.S. only confounds the job of the long-term asset manager creating a sense vulnerability to shock events like Brexit, the election of President Trump and the growing drum beat of war. This not only makes this class of investor too big to fail, troublingly, it makes them too big to hide. The second broad trend assailing the asset management industry is the fact that risk and uncertainty are no longer relegated to developing and emerging markets, but are now firmly ensconced in the advanced economies with profoundly vexing consequences. The convergence of these trends and the desperate search for yield (and shelter) call for novel approaches to rebalancing the traditional risk-reward tradeoff. In short, it is time for long-term asset managers to take some risks.

Nowhere to run, nowhere to hide: As a rule, long-term asset holders understand and are well-hedged when it comes to market volatility – or, simply put, price swings in their portfolios. They address market volatility through their sheer size and ability to create and dynamically manage highly diversified investments. Risk and uncertainty on the other hand are much harder to dispense with using the mathematical models that address volatility. They are even harder to shelter from when your investments are systemically correlated to the entire global economy. In short, long-term asset managers can no longer operate under the presumption of safety by remaining north of the Mediterranean or sheltered between the Atlantic and Pacific Oceans. Ironically, for long-term asset managers to adapt to this new normal, they can no longer hide from risk, but must begin taking measured risks of their own. This investment thesis is not about altruism or philanthropy, but rather about protecting and preserving wealth through a proactive investment model designed to mitigate long-term adverse effects by pre-investing in the very sources of stability these asset-holders rely on. This much is the raison d'être of the Bretton Woods II initiative, which aims to codify these frameworks.

The simplest place to begin is by revisiting investment mandates, many of which stigmatize or directly preclude developing and emerging market capital flows as risk prone loss leaders. Alternatively, and this is a fair criticism given the scale of long-term asset holders, the opacity, comparatively low dollar amounts, and the administrative burden outweigh the potential rewards of these venturesome investments.

The experience of the burgeoning impact investment universe, where funds such as LeapFrog Investments are delivering above market returns and diversification singularly through emerging markets offers a compelling case study for large asset holders.

While the quantum of capital between impact investors and long-term asset holders' pales in comparison, the experience of deploying risk-managed capital to hitherto "no-go zones" is telling. One of the most powerful yet underutilized tools in this approach is to incorporate insurance as a condition precedent to the deployment of capital. Many asset holders maintain that their negative yield investments in Europe during the height of the global financial crisis were in fact risk premiums on retaining access to European markets. In effect, they were prepared to lose money in Europe, rather than to venture south of the Mediterranean, where the advent of their capital – like LeapFrog's – might have found the right risk-reward tradeoff, while at the same time having a stabilizing effect on some of the root causes of global instability.

Featured Analysis

Investment determinism: The historical reliance on "constants" in investments models, such as housing prices being a perpetuity, or the presumed safety of municipal debt are all being challenged. Additional pressure in the form of disruptive innovations, automation, and technologies, are dislocating entire economies and, with them, historically safe and predictable asset classes. Against this backdrop, the long-term asset holder, including the insurance industry, must begin taking measured risks in their capital allocation strategy, which needs to be recalibrated for the age of disruption and man-made risk. No other pool of capital can shape the future quite like long-term asset-holders, whose investment horizons and unmatched purchasing power can drive profound change. Where are these unexploited opportunities to shape the future and deliver stable risk-adjusted returns to investors?

As an asset manager, it is wise to go long on climate change and to short underground parking in Florida. For an industry that looks for modelling certainty, climate change offers both challenges and opportunities. On the one hand, long-term asset managers are exposed to the increasingly severe consequences in their portfolios in the here and now. Record flooding in Houston, which has suffered 3 consecutive 500-year flood events, or weather-related damages to properties, such during Hurricanes Harvey, Irma and Maria or the Tohoku Earthquake, are only likely to increase in impact and severity. It will be difficult for asset holders to rapidly divest from these assets, which have historically been a source of stability and income continuity. However, these operating models presuppose that major urban centers will remain as vibrant as they are today over a 30-year investment horizon. Likewise, artificial intelligence (AI) and automation spell double-jeopardy to the office workers who occupy the center-city properties asset managers love.

Just as the once vibrant industrial base of Detroit spelled ruin for the city when the global economy shifted from production to services. The age of industrial and process automation, fractional asset ownership and disruptive technologies, such as Blockchain, will profoundly shift known investment variables, including labor patterns and therefore downtown property values. Long-term asset-holders will need get out of their comfort zone to anticipate and begin to shape these trends and, therefore, begin recalibrating their portfolios.

Investing in smart infrastructure, transportation and cities that espouse resilience as their goal is a great investment opportunity. The global infrastructure funding gap of $3.3 trillion can only be filled by long-term asset holders. Governments can spur this investment flow by issuing resilient infrastructure bonds that create investor confidence and greater degrees of modelling comfort. However, here too the rising specter of sovereign debt and defaults makes long-term government guarantees hard to rely on even in advanced economies. Similarly, renewable energy, which increases in industrial-scale with each passing year, also plays to modeling certainty, as the carbon-based economy is increasingly a thing of the past. While there is a standards war at play on which renewables emerge the victor, what is clear is that investors cannot take a one-size-fits-all approach, but rather can create a portfolio process for renewables that diversifies across wind, solar, battery and bio-fuels, among others. In this manner investors are exposed to the industry cross section and they can begin to deploy their capital to shape the more stable (lower impact) energy matrix the future demands.

Risk-taking is not merely about market risk and hedging against volatility, it is also a matter of participating in the impressive wave of technology and financial innovations shaping the market. In this process, the long-term asset manager is a scarce figure, and this must change. Technologies such as digital currencies and Blockchain, which can enable a friction-free and trust-based economy offer impressive opportunities to break the pattern of long-armed capital allocation through intermediaries, which only favors scale and the presumption of safety. The advent of financial innovations like the concept of a catastrophe bond for man-made risks, can enable the deployment of much needed capital against a more complex risk landscape that is difficult for insurers to model. Finally, insurance and insurance-linked instruments offer many opportunities to put a fixed price on uncertainty enabling greater geographic and sectoral spread among conservative investors. A changing world demands greater equilibrium in how assets are allocated and investors must confront the challenge of investing now to avoid paying later.

https://intpolicydigest.org/2017/12/09/invest-now-pay-later/

CLIMATE CHANGED | PUBLISHED 10.13.2017

Written by Dante Disparte
Originally published on Huffington Post

For many decades, climate scientists have warned of an accelerating rate of climate change, which would bring about more extreme weather patterns heralding an age of consequences. These dire warnings were easy to ignore, especially as climate change went by the comparatively gentle misnomer global warming. The future tense description climate change, where most of the impacts were long range externalities outside of the advanced economies, the worst polluters, is similarly misleading. Today, however, the seemingly endless raft of extreme weather events suggests that the climate is not changing, it has changed and our societal imperative is to end the causality debate and begin responding to effects in the present tense and with great urgency.

With this change, which is upon us from the wild fires in California that resemble a hellscape, to record city-level flooding in Houston (the 4th largest city in the U.S. and a choke point for the oil industry) and the apocalyptic scenes in Hurricane Irma and Maria's wake, the case for resilience could not be more urgent. Looking at the complete collapse of Puerto Rico's infrastructure and the inability or unwillingness to send in the cavalry drives home the point that in the face of extreme weather, we can no longer be islands unto ourselves. In all, tallying up the economic costs of the 2017 hurricane season, perhaps the most damaging on record, exceeds $200 billion in a little over 2 months. While the impact of these events goes far beyond economic costs, the financial toll is catching households, businesses and political leaders flat-footed.

RISK MATTERS | SPRING 2018

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Certainly, the financial calculus must change in the risk-bearing industry, where insurers and reinsurers rely on dated actuarial and catastrophe models that do not adequately contemplate the turbulent world we are living in. Highlighting this issue of model error, Texas has had 3 500-year flooding events in the last 3 years consecutively. Perniciously, only 15% of Houston households had flood insurance passing unfunded losses on to tax payers and relief organizations. The vulnerable fall through the tears in our financial fabric and when resources run dry, disaster fatigue sets in and the unfocused media cycle moves on.

Insidiously, this model error creates a vicious cycle where insurers undercapitalize for catastrophic losses, resulting in cost-prohibitive private solutions against flood, wind or earthquakes, where government-backed programs fill the void. This in turn results in adverse selection, where the worst risks are the only buyers. The result is the type of troubling uninsured or underinsured rates against predictable risks, such as earthquakes in California, where a mere 10% of homeowners are insured. Similarly, it is doubtful property insurers – or the building code for that matter – contemplated Oklahoma becoming the seismic capital of the continental U.S. A dubious distinction that highlights the collision course between man-made and natural risks. At $200 billion and mounting, the U.S. is facing a hefty down payment on doubt and should retake its seat at the global climate change table leading the world to a more engaged and resilient future.

All too often, when our first lines of defense fail, with nature being the outermost layer, we are left with no other choice but a Federal or military response, which is the costliest of interventions we have. An emblem of this is the fact that the Federal Emergency Management Agency, FEMA, had $1 billion left in its budget when Hurricane Harvey unleashed its rain bomb on Houston. An emergency line of credit of $15 billion, which was passed by Congress at the 11th hour is hardly a strategy on long term resilience, no more than having to send a military relief flotilla to the Caribbean to respond to Irma and Maria's wrath. The human and natural toll from these events is truly astounding, raising calls to build back better with resilience at the design level – if to build back at all.

In terms of the human toll, in Puerto Rico for example, 16 lives were claimed during the initial phase of Hurricane Maria. More than twice that number have died in the aftermath largely due to preventable illnesses exacerbated by the collapse of the island's healthcare system. The number is sure to rise as vulnerable people, especially the chronically ill, elderly and children are exposed to a crumbling healthcare system and an appallingly slow humanitarian response. Another human challenge posed by climate change is disaster-displacement. While millions of people have been dislocated in 2017 due to weather-related events, the longer-term prospect of permanent displacement (what are known as internally displaced people (IDPs) in humanitarian parlance or climate refugees in the case of Barbuda) is a very real specter of climate change. Forever changing the cultural and economic character of stricken communities, cities and regions in many ways adds insult to injury. A decade after Hurricane Katrina levelled New Orleans, for example, pre-disaster population levels and vibrancy have been slow to return.

While humanity has grown accustomed to challenging nature's boundaries and ignoring Cassandra's prophesying about long term consequences, the fact that climate changed can no longer be ignored. Against raging wild fires, it will be hard to fight the urge to cut back the forest line to make way for human habitation and our economic motives. Perhaps the line of human habitation and our profit motive should be abated to strike equilibrium with nature? The Fort McMurray fire in Alberta, which triggered a mass exodus of 80,000 people, was more severe because of oil sands, showing that we cannot win a collision course with nature. Indeed, if there is any lasting lesson from the recent wave of devastating natural disasters is that prevention and natural resilience are better than cures. Moving from a position of conflict with nature to co-movement requires profound change at all levels of human adaptation. This is not only the greatest challenge humanity has ever faced, it is also our greatest investment opportunity.

https://www.huffingtonpost.com/entry/climate-changed_us_59dff90be4b09e31db9757cc

RC Answers

What are common misconceptions or blind spots about cyber risk?

Insurers may have been underwriting cyber risk for nearly 20 years, but myths and mis-information still abound when it comes to cyber security. The cyber attacks that make the news tend to involve large companies, but organizations of all sizes are vulnerable.

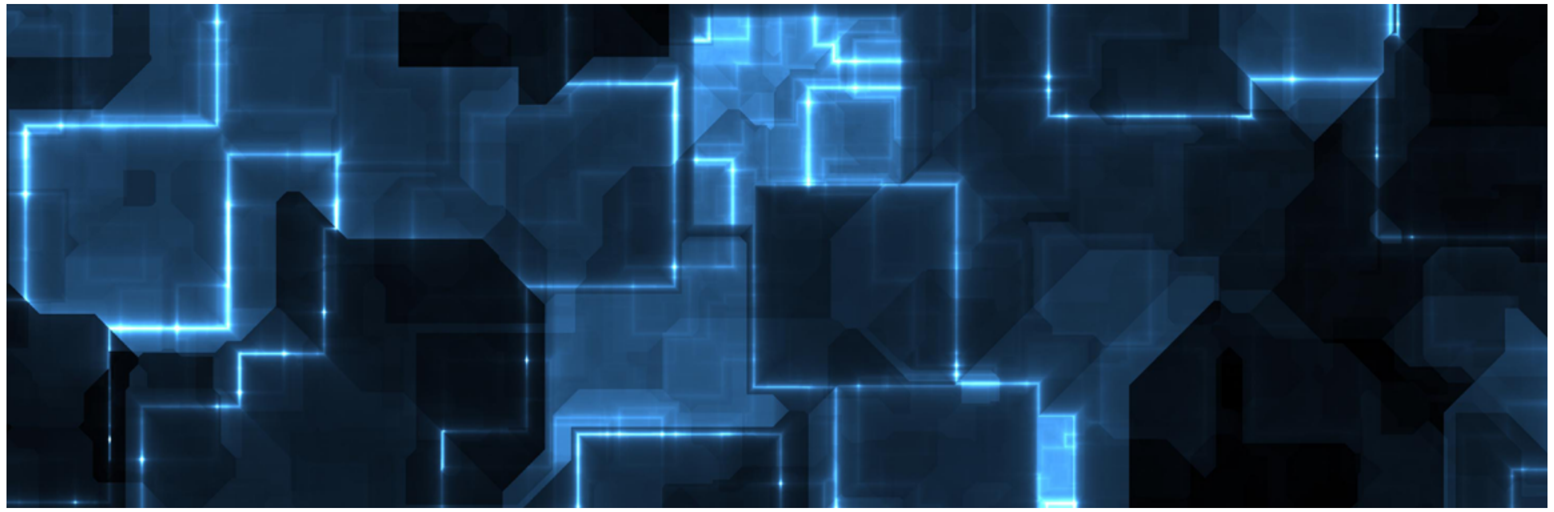
One of the most pervasive myths is that cyber security is exclusively an IT issue. Furthermore, there is a willingness to believe that competent IT service providers can ensure cyber security through technology-based solutions. While fighting against the modern technological weapons of nefarious actors (malicious code, viruses, ransomware) is an important element of a robust cyber security plan, the fact is that most cyber risk lies between the keyboard and the chair. Human flaws of curiosity and apathy expose companies to cyber attacks.

Many organizations think they are fully protected by their general insurance policy. However, while many insurers offer some cyber coverage bundled alongside their business insurance offerings, cyber insurance has more in common with kidnap and ransom coverage than traditional liability. Some stand-alone cyber policies even cover instances of cyber terrorism. What really matters is not the financial aspect of the policy, but the response team's ability to minimize negative impacts on business functions and company reputation.

Our 360° Cybersecurity Report is a valuable resource for gaining insight into trends, best practices and emerging cyber vulnerabilities.

HAVE A QUESTION FOR OUR EXPERTS?

Send your inquiries to info@riskcooperative.com and your question and answer may be published in a future edition of Risk Matters.



Announcements

AN INDUSTRY FIRST: BLOCKCHAIN-BASED RISK REGISTRY

Insurer Beazley BEZG.L has partnered with Risk Cooperative, Bitfury Group and Emercoin to build a blockchain-based registry that will manage insurance for crisis situations such as mass shootings.

The registry will use blockchain, a digital ledger of transactions, to speed a response to mass casualties and their financial aftermath by allowing policyholders and insurers to catalogue coverage and share real-time information about threats and claims through one source.

The registry is an early example of using blockchain for insurance. Many insurance industry leaders envision "smart" policies of all types will be stored in blockchain and automatically track premiums, pay claims and keep records.

Many companies still manually record on spreadsheets their annual policies and coverage limits, a practice that can heighten the risk of human error.

Policy exclusions or having too little coverage can leave communities and victims unable to cover expenses, but those gaps are easier to spot through a permanent blockchain ledger, Disparte said.

CYBER RISK: BUSINESS CONTINUITY AMID RAMPANT CYBER THREATS

Cyber risk is increasingly defining the 21st century, with virtually every facet of the global economy exposed. Chief Revenue Officer, Les Williams shared the latest insights on cyber risk and risk management in a presentation titled *Cyber Risk: Business Continuity Amid Rampant Cyber Threats.* He focuses on the evolution of cyber threats, the impact they have on organizations, and mitigation techniques.

DOWNLOAD THE PRESENTATION

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