

MISC

a journal of
strategic insight
and foresight

FALL 2016
\$12 USD \$12 CAD
£7.50 GBP

DISPLAY UNTIL
01/31/2017



**Design Perspectives
for 2020**
P.26

**The Future of
Financial Crime**
P.56

**2020: Exploring
Industry Futures**
P.70

**Science Fiction
in 2020**
P.120

**Perspectives
& Speculations**





Contents

Theory, So What? 6

Signal, So What? 8

Insight, So What? 10

Design Perspectives for 2020 26

Health in 2020 32

Technology and Religion:
Prayer in 2020 50

The Future of Financial Crime 56

2020: Exploring Industry Futures 70

Speculating on Speculation:
Science Fiction in 2020 120

Create 126

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MISC (ISSN 1925-2129)
is published by Idea Couture Inc.

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Publisher

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As publishers of *MISC*, our aim is to provide a new level of understanding in the fields of insight and foresight. We navigate the blurred boundaries of business, design, and innovation through in-depth articles from some of the preeminent voices of design thinking, technology, customer experience, and strategy.

Idea Couture is a global strategic innovation and experience design firm. It is the innovation unit of Cognizant, and a member of Cognizant Digital Works. We help organizations navigate and innovate in complex and uncertain environments. We use design thinking methodologies to solve problems and exploit business opportunities – generating new growth, meaningful differentiation, and economic value.

By taking an insight and foresight lens to our explorations in *MISC*, we can thoroughly examine the impacts and opportunities for change in a vast range of industries, allowing businesses to plan for the present and the future.

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Foresight

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The University of Houston's Foresight Program offers a Master's Degree in Foresight, a four-course Graduate Certificate, and a week-long intensive bootcamp overview, each of which prepares students to work with businesses, governments, non-profits, and others to anticipate and prepare for the future.

Established in 1974, it is the world's longest-running degree program exclusively devoted to foresight. Some students enroll to become professional futurists, while others seek to bring a foresight perspective to their current careers.

Students have three major areas of focus: understanding the future, mapping the future, and influencing the future, blending theory and practice to prepare graduates to make a difference in the world.

KAOSPILOT

kaospilot.dk

Kaospilot is an international school of entrepreneurship, creativity, and leadership. It was founded in 1991 as a response to the emerging need for a new type of education – one that could help young people navigate the changing reality of the late 20th century.

The program's main areas of focus are leadership, project management, creative business, and process design. Promoting a hands-on approach, case studies are replaced by immersing students in real projects with real clients. Out of more than 600 graduates, one third have started their own company, NGO, or other similar initiative, the remaining hold management positions.

Kaospilot also offers a wide range of courses for professionals in creative leadership and educational design.

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cedim.edu.mx

Based in Monterrey, Mexico, CEDIM takes a design, innovation, and business comprehensive approach to education. Design is promoted as a core philosophy, and the faculty consists of active, young, and experienced professionals who have expertise in a broad range of fields. Students are engaged with real and dynamic work projects, and are encouraged to immerse themselves in these active projects in order to participate in the realities of the workforce long before graduation.

As a result, students at CEDIM develop an extensive sensitivity to their social, economic, and cultural environment, and go on to make real, pragmatic change in the world of design and innovation.



ocadu.ca

OCAD University's Strategic Foresight and Innovation program (SFI) can claim a place at the leading edge of pedagogy and foresight practice. The SFI program is creating a new kind of designer – a strategist who sees the world from a human perspective, rethinks what is possible, and imagines and plans a better future.

Recognizing the increasing importance that design thinking can play in positively impacting society, enhancing business success, and managing organizational change, students in the program address the complex dilemmas of contemporary society. This interdisciplinary program interweaves design and foresight methods with social science, systemic design, and business, while providing the skills and knowledge to identify critical issues, frame problems, and develop innovative and humane solutions to better implementation plans.

The Future of Financial Crime



BY ROBERT EVANS AND GEMMA ROGERS

The past century has seen a huge shift in the financial services landscape – from the growth of retail banking (as we know it) in the late 1800s; to Diners Club developing the first credit card in 1950; and the elusive Satoshi Nakamoto’s invention of Bitcoin, the world’s first fully virtual currency, in 2008. The evolution in financial services has been complemented by the rapid development of enabling technology, the internet, a huge growth in connectivity, and the successful emergence of mobile and flexible payment channels. Collectively, these exciting developments are opening up financial services to new markets and users, as well as offering customers better value and more choice.

With 48% of the world’s population now using the internet, there is no doubting that the world of financial services will continue to evolve as we move toward 2020. The 2015 EY FinTech Adoption Index identified that, of the 10,000 digitally active people surveyed, the US has the second highest adoption rate (16.5%) after Hong Kong (29.1%), with the UK (14.3%) and Canada (8.2%) also in the top six. The majority of those surveyed also realize the consumer benefits of new payment, transfer, savings, and investment solutions.

In 2015, a number of fintech CEOs shared their predictions for the future of financial services with *eFinancialCareers.com*:

“The blockchain is going to change everything, especially financial markets. If done well, the development of a financial-grade ledger could fundamentally change the very fabric of the financial services infrastructure. These technologies could transform how financial transactions are conducted, recorded, reconciled, and reported – all with additional security, lower error rates, and significant cost reductions.”

– David Rutter, CEO of R3

“A generation who are used to ‘mobile first’ will kill the branch banks and will cause those banks who don’t have a good online presence to bleed customers. Fintech startups will eat the overpriced bank services for breakfast.”

– Andrew White, CEO of FundApps

A Changing Risk Landscape

With such developments – which are often rapid and occasionally chaotic – the risks and opportunities for both legitimate consumers and financial criminals have evolved and expanded.

Take bank robberies, for example: once prevalent in society (and the subject of many a Hollywood blockbuster), the number of physical bank robberies committed in the UK was reported in 2013 by BBC News to have dropped by 90% over the previous decade. That trend can be explained by a number of important phenomena, including the improvement in physical security systems and cash management, reduced usage of cash by customers, and better investigation by law enforcement. However, there is an argument to be made that bank robbery has simply changed in appearance from masked raiders to complex technical attacks. As technology has evolved and more systems have gone online, electronic attacks on financial institutions have increased and are now commonplace, as demonstrated by the 2015 Dridex attack on UK banks where customers lost £20M, and the 2016 theft of \$81M from the Bangladesh Central Bank in a hack of the global SWIFT payment system.

PHOTO: BEATRIX BOROS

Card fraud, on the other hand, is in its heyday, with rising numbers of card-not-present (CNP) frauds taking place each year with no immediate sign of that abating as we move toward 2020. As Financial Fraud Action UK reports, card fraud in the UK alone was valued at £568M overall in 2015, with £398M attributed to CNP fraud. Through this rise in CNP fraud, combined with the decline of cash as the payment method of choice (it is predicted by Consult Hyperion to represent just 27% of total transactions in 2025), we see an indication toward a growing trend of cybercrime combined with more traditional fraud methodologies, with cyber criminals using stolen credit or debit card data to facilitate fraudulent online payments.

As Limor Kessel, an Executive Security Advisor for IBM, notes in her article for *Security Intelligence* titled “2016 Cybercrime Reloaded: Our Predictions for the Year Ahead,” cybercrime groups are now well organized and operate “like startup companies;” this makes them highly adaptable and dynamic, allowing the criminal groups to take advantage of the rapidly evolving financial services and technology landscape.

With the advancement of Bitcoin and other virtual currencies, as well as the increasing use of prepaid card programs, the financial crime risks associated with these payment mechanisms cannot be underestimated, nor can the criminals’ awareness of their vulnerabilities. Indeed, the Financial Action Task Force (FATF) – an intergovernmental body developing and promoting policies to combat money laundering and terrorist financing, and one of the world’s leading authorities on financial crime – has concerns about the use of virtual currency given its associated weaknesses. These include its lack of customer identification (one of the key tenets of financial crime prevention programs is the clear and full identification of a customer) and its inability to link transactions to real world identities. This makes virtual currency an ideal platform for a cybercriminal who already operates in a world of avatars and codenames and wishes to remain anonymous while transferring funds internationally and instantaneously.

Moreover, the development of the Internet of Things (IoT) – a market estimated to include 20.8 billion connected devices by 2020 – presents a further opportunity for criminals (largely cyber-based ones) to exploit. Gartner, a leading technology research firm, predicts that more than 25% of cyber attacks will involve the IoT in 2020.

With more and more personal data online, multiple connected devices, the increased use of biometrics as an identification verification tool, and the establishment of private, permission blockchain-based payment systems gaining in traction, as well as state sponsored virtual currencies, the possibilities for criminals to exploit each of these grows accordingly. When this is combined with the increased political instability we are currently seeing across both the developed and developing world, it is possible to paint a gloomy picture of the world in 2020.

Building a Positive Future

However, the world has faced threats, political precariousness, and rapid innovation before: the post-war period is the preeminent and most recent example of this, and the Industrial Revolution before it – while not without its issues – represented one of the most significant leaps forward in the history of human innovation. As such, it is highly likely that in an ever more connected but disrupted world, and one in which data has primacy, there are more opportunities than threats.

Take, for example, the use of artificial intelligence (AI) and machine learning as a fraud, cybercrime, and money laundering detection tool: instead of systems relying on a series of static rules to detect suspicious transactions or patterns in an account (as they do now) – which often throw up huge volumes of false positives, leaving an analyst overworked and blinded by too much data – imagine a tool that intelligently learns individual customer behavior, tuning its controls and limits according to the patterns noted in the account over time. Not only would this significantly reduce the resources required to monitor the transaction alerting tool, it would also lead to a deeper and better understanding of the customer and their needs, as well as building a more accurate and targeted picture of transactional activity, leading to better insights about the motivations behind customer behavior, whether licit or illicit. These improvements in financial crime detection are predicted by the Centre for Economic and Business Research (CEBR) to result in efficiencies gained by businesses in the region of £290M between 2015 and 2020.

Such benefits, combined with the growth of mobile-based banking, could begin to address the problems of financial inclusion. Already, the World Bank has highlighted a dramatic reduction in the unbanked population globally, falling from 2.5 billion adults with no access to banking services in 2011 to 2 billion in 2014, representing a 20% drop over three years, and leading toward a reduction in poverty levels globally. Improvements in anti-fraud and money laundering detection services will directly contribute to a more nuanced understanding of customer risk, which, in conjunction with the newer mobile-only challenger solutions, will allow more customers access to banking and financial services while also bringing down the rates of fraud. The additional understanding of ongoing financial crime typologies learned from intelligent systems will also contribute to a deeper understanding of criminal activity, allowing more focused and tailored controls to be deployed in a proactive format.

Using technology such as mobile-based banking is a particularly strong opportunity space for challenging traditional norms and increasing security. “When you have a huge branch network, each branch is a network port and the attack surface is massive,” says Tom Blomfield, the CEO of an emerging UK-based challenger bank. “We have no branches so our attack surface is much smaller.” The other advantage of mobile-first banking is that GPS location monitoring makes it easier to identify potential fraud, where the phone is in a different location to that of the card being used to pay.

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Card fraud is in its heyday, with rising numbers of card-not-present (CNP) frauds taking place each year with no immediate sign of that abating as we move toward 2020.
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There is no denying that the financial crime landscape has – and will – become more diverse for customers and businesses as we continue toward 2020. It is highly likely that the downward trend in crime conducted in the physical person will continue, but, as shown above, this will continue to be replaced by criminality exploiting online and connected channels. Many industry commentators call it a cyber arms race – one that we are probably not yet winning. For the benefits of this rapid fintech evolution to be truly recognized, there is still a lot for the industry to do in order to build customer trust so that consumers believe that they can protect their data, money, and interests. From our experience, the industry and regulators see this as a critical responsibility that they are working hard to address head-on.

As such, our vision for 2020 is one of optimism and excitement. Are there challenges to be overcome? Of course. But as long as consumers are vigilant, providers continue to drive forward solutions that build trust and protection, and regulators develop proportionate regulations, we can derive both commercial and socioeconomic benefits from the rapid evolution in financial services as we move toward 2020. ////

Special thanks to Resma Gandesha and Onesimo Hernandez.

Robert Evans and Gemma Rogers are co-founders of FINTRAIL Ltd., a provider of financial crime risk advisory services.

20/20 VISION

by Oltmans van Niekerk



Trendresearch / Consumer insight / Strategy / Product directions / Materials & Colours

Oltmans van Niekerk is a trend forecasting agency specialized in futures studies on lifestyle and design. Their goal is to identify key directions and shifts in society to create a clear picture of emerging behavioral and attitudinal lifestyle trends and aesthetics. Published once a year, consumer insight trend book 20/20 Vision offers an insightful and well-organized overview of worldwide cultural, technological, economic and social trends. An essential source of information and inspiration for anyone involved in long-term product development, marketing and strategy.

Understand people, create the future!

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