Deutsche Bank Digital Cash Products

Digital Unpuggec



First Album

Charts Spring 2018

PLAYLIST SPRING 2018



Digital Unplugged: Focus on Digital Trends in Asia

In the last three years, we have seen a confluence of events that led to an explosive growth of 'Digital' in Asia. We explore the drivers behind this growth.







Digital Unplugged: Focus on Data Science

Hear first-hand from a data scientist about the importance of data science and exploration in large organisations.



Digital Unplugged: Focus on Mobile Wallets

We are looking into the shifts being made towards a paperless, cashless economy including mobile wallets and what it means for financial services.





Digital Unplugged: Focus on Innovation Labs

Everyone loves a lab. They create spaces for knowledge exchange, business development, and investment opportunities. Learn how to use them to disrupt from the inside out.



New digital trends promise to transform the way industries work, communicate and collaborate. This is especially true in financial services where emerging technology is simultaneously driving change in business models and client needs. But how do some of these innovations actually work and how can they create opportunities? Our Digital Unplugged series sheds some light.

Visit: <u>Digital Unplugged Campaign page</u> Connect: <u>digital.unplugged@db.com</u>

Digital Unplugged



Digital Trends in Asia

TRACK 01

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ASIA: DIGITAL KICKS INTO GEAR

01

"In the last three years, we have seen a confluence of events that is leading to an explosive growth of 'digital' in the Asia region.

Asia is home to a large un-banked and under-banked sector, creating a goldmine opportunity to address the 1.2 billion-strong unbanked population¹ and the chronically underserved SMEs (97% of APAC enterprises). We see both, incumbent banks and new players, bringing financial services to these populations via mobile phones at lower costs and greater ease, without ever setting up a physical banking branch.

We have a 'Fintech-ready' generation driving a change in customer behavior. A 2016 Ernst and Young report estimates that by 2030, twothirds of the global middle class will be residents in Asia-Pacific. This is a young generation with increasing buying power, technologically savvy and upwardly mobile."

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TECHFIN PLAYERS AIM TO DISRUPT

"Leapfrogging' technologies are being adopted and we see markets skipping the entire landline era to conduct business via mobile phones. In particular, the rise of e-commerce, mobile payments and the gigeconomy means that consumers are increasing their digital footprint and consequently providing Tech companies with access to enormous amounts of data and information. This data is enabling new innovative value-added digital services and nowhere is this more evident than in China, where the 'TechFin' players Ant Financial (commonly known as Alipay) and TenCent Holdings have expanded into various financial services products. Regulators are playing a dominant role in fostering industry collaboration and formulating financial inclusion measures to include the un-banked populations into the monetary system. In India, for example, the

government is driving development by leveraging the so called 'India Stack'. The aim is to promote the country's move towards a presenceless, paperless and cashless economy.

Against this backdrop of fast paced technological change - it is a very exciting time to be in Asia Pacific."

EMERGING FINTECH ECOSYSTEM

"So what does this mean for Deutsche Bank?

Deutsche Bank is already a member of instant payment schemes in Singapore and Sri Lanka and will be going live this year with new instant payments schemes for India UPI and Malaysia's Real-time Retail Payments Platform (RPP). Deutsche Bank in Singapore, together with a number of banks and corporates, are participating in an IBM led project to develop a KYC register on the blockchain.

Finally, taking advantage of a developing Fintech ecosystem and a supportive regulatory environment, Deutsche Bank is working to establish the first Innovation Lab for Asia Pacific in Singapore.

The Deutsche Bank Labs act as the eyes and ears into the local innovation ecosystem and provide connectivity to start-ups into Deutsche Bank. It's a space for collaboration and co-creation with our corporate clients in Asia."

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Data Science

TRACK 02 Jity Score



WHAT'S **DATA SCIENCE?**

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"The term data science is fairly loaded these days. Depending on who you speak to, everyone's definition of data science can somewhat vary, and needless to say, people tend to get very passionate about the topic.

But what does data science entail? Key to data science is the 'data value' extraction', meaning the most important thing we are trying to do here: find the value in the data.

Another significant element in data science includes 'data exploration', because to extract value from data, you need to think about things like the data pipeline, data curation, tools and platforms. All these form the basis to apply data science and analytics techniques and are commonly known as the 'data value chain'.

A slightly more formal definition would describe data science as scientific and statistical methods to unlock insights and value from data."





WHAT IS A DATA SCIENTIST?

people's lives simple.

"To put it quite simply, data scientists help solve business problems; they do so by applying data to a problem. More practically, what data scientists do includes:

- Sourcing and engineering data
- o Curating data
- o Building a deep understanding of the data they are working with, including data quality and nuances with the data
- o Continually test, validate, monitor and improve upon their work

That also explains why all progressive and modern businesses should have data scientists or specialists in their organisation.

Businesses operate by passing data from system to system, and getting a better understanding of that data will allow businesses to create operational efficiencies, provide better services to their customers or simply plan better."





WHY DO BANKS NEED DATA SCIENTISTS?

experiences that make people's lives **simple.** "Most banks process and store huge amounts of data for regulatory reasons or otherwise. Most banks are also very old, which means there is a lot of legacy technology.

Many of these legacy systems didn't produce data for analytical consumption. This is where a good data scientist can really add value. Extracting the insight from these legacy data producing systems to provide better experiences and products for clients.

As banking clients evolve, the way they use banking services evolve, which is realised through the ever increasing demand for digital capability.

Banks need data scientists to help understand this growing mass of data being produced by these digital banking products to create better and more useful customer propositions."



Mobile Wallets

Playlist Spring 2018

TRACK 03



\$6TR ANNUAL MOBILE PAYMENTS IN CHINA

03

"In China, cash has virtually disappeared from urban areas in only four years. There are now about \$6trillion of mobile payments in China per year¹ – most of them done using Alipay or WeChat Pay, which between them have over 1 billion active user accounts.

In addition to basic mobile payments, both now offer a range of solutions including wealth management, QR codes, taxi ordering, utility bill payments and so on. Even buskers in China now use QR codes featured on cardboards so that passers-by can donate electronically!

Mobile wallets have also seen high growth outside of China. These days, Paypal processes over \$500bn in annual payments². Apple Pay, Android Pay and Samsung Pay are getting traction outside the USA and many other mobile wallet providers are entering the market. This will be further accelerated by new regulations in Europe promoting the move to open banking models."



THE GIG ECONOMY GROWS DAILY

"It's predicted that the gig economy will continue to grow at a rapid rate. In the media industry, bloggers and content providers need paying; in the service industry, Uber and delivery drivers need to be paid.

People are increasingly choosing to work for themselves and technology is enabling this. In the USA, the gig economy is estimated to have 60 million workers earning more than \$1tr per year¹. And mobile wallets are an efficient way of making the required mass-volume micro-value payments to support this growth.

So with more and more consumers and businesses using mobile wallets, banks are also working on their own mobile wallet solutions. Zelle in the USA and Swish in Sweden allow retail clients with the major banks to make instant P2P payments."

NEXT: BROADEN SCOPE FOR B2B

"So what does this mean for Deutsche Bank?

At Deutsche Bank, we are currently working with two dominant mobile wallet providers on developing solutions which will broaden our disbursement methods and allow us to start making local and crossborder payments into e-wallets. The next step will be to look at collections from mobile wallets.

Looking further down the line, the combination of e-wallets with the likes of distributed ledger technology, the Internet of Things and instant payments will broaden solution scope and usage, especially in the Business-to-Business (B2B) sector. To stay ahead of our competitors, both bank and non-bank, banks need to be more client-centric than ever to understand clients' future needs and support their business transformation with new solution development."

Innovation Labs

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THE OWNER OF TAXABLE PARTY.

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LABS: DISRUPT FROM THE INSIDE OUT

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"There is no single recipe to deal with today's digital innovation, but innovation labs can be a crucial ingredient.

Labs for large companies create spaces for knowledge exchange, business development and investment opportunities. They can be a way to generate internal momentum for disruption from the inside out.

Innovation thrives on collaboration and labs create the right environment for this. Large companies and start-ups are at their best when they join forces to speed up the innovation process. Banks can provide client access, industry expertise and a ready-made infrastructure. Start-ups bring technology insight, new angles and a flexible way of working. Combining the two is a powerful proposition."

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WE OUR LABS

"Labs are definitely not hollow initiatives just created for some buzz. They go beyond the typical R&D department. They offer a unique environment for creativity, information sharing, and developing comprehensive solutions. They can be fintech incubators, start-up accelerators and HR recruitment tools that will help position the institution for success in the Digital Age.

The reason that everyone loves labs is because they help create a positive and lasting impact for clients and culture.

Deutsche Bank has four labs around the globe in Berlin, London, New York and Silicon Valley, with a fifth to be opened later this year in Singapore."

PREVIEW: SUMMER CHARTS

PLAYLIST

TRACK 5

BIG DATA: WHAT'S IN IT FOR TREASURY?

TRACK 6

THE INTERNET OF THINGS: WHAT HAPPENS WHEN EVERYTHING GETS CONNECTED?

TRACK 7

TRACK 8

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OPEN BANKING: ABOUT APIS & PUSH PAYMENTS

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REGULATION: ACCELERATOR OR CHALLENGER ?



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