

THE DISRUPTION OF FINANCIAL TECHNOLOGY AND APPLICATIONS

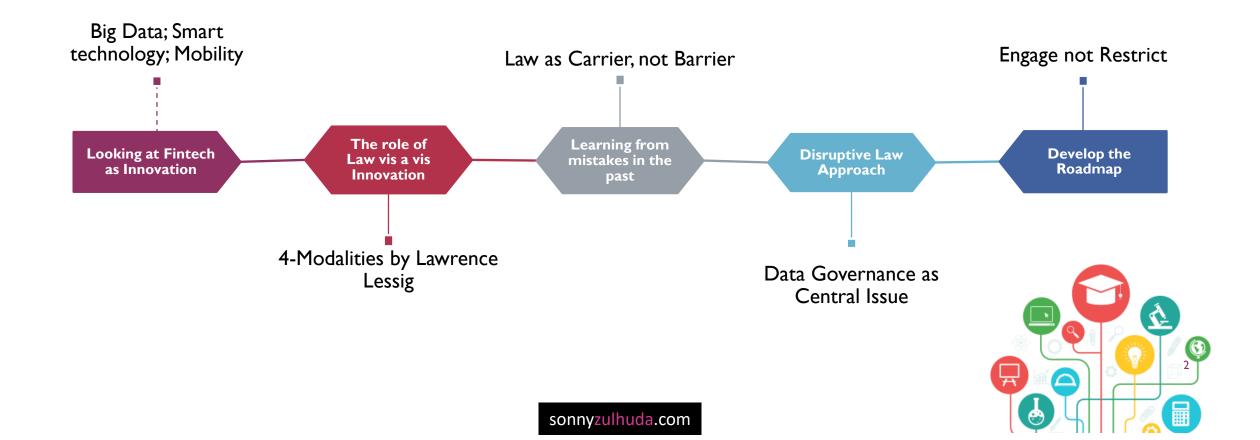
DR SONNY ZULHUDA

ASSOCIATE PROFESSOR AT AHMAD IBRAHIM KULLIYYAH OF LAWS

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

Presented at Telkom University Tech Talk V.5 7 Meu 2021

OUR LITTLE FINTECH JOURNEY TODAY



WHAT MAKES A FINTECH

Flavors of Fintech

The fintech label applies broadly to financial-services companies using the internet, mobile phones and the cloud, including:



Peer-to-peer lenders

Funding Circle and LendingClub are examples of these nonbank lenders. They match borrowers with investors and shorten approval times to hours.



Robo-advising

Giant BlackRock Inc. and new firms such as Scalable Capital Ltd. use algorithms to adjust portfolios in line with a customer's risk preferences.

Illustrations by QuickHoney



Crowdfunding

Indiegogo and GoFundMe raise small amounts of money from large numbers of people. They help charities and entrepreneurs.



Blockchain and Bitcoin

Exchanges and banks are developing applications using blockchain, the free database that processes Bitcoin transactions.



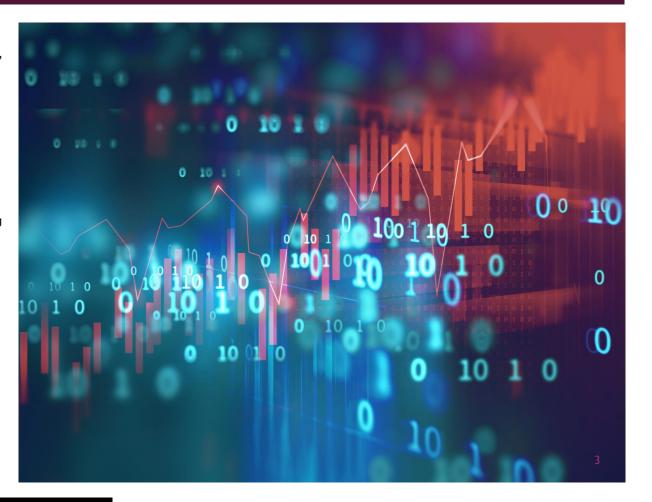
Mobile payments

Millions of people without bank accounts can now transfer money from their mobile phones. Some services convert currencies for less than banks charge.



Insurance

Traditional companies are investing in so-called insurtech startups, which claim to cut the time it takes to buy life insurance to minutes from weeks.



BloombergQu sonnyzulhuda.com

WHAT MAKES A FINTECH



Synchronised (data, gadget, marketplace)



Man-machine synergy



Al / Analytics (Big data)



Revolutionary-Efficiency



Targeted/Customised



WHAT MAKES A FINTECH

Fintech: FINANCE + TECHNOLOGY

The use of technology for a variety of financial services and products

- An innovation in the making
 - Innovation on worldly affairs in order to attain the pleasure of Allah SWT is encouraged in Islam
 - Qur'an Chapter 55:33 "O company of jinn and mankind, if you are able to pass beyond the regions of the heavens and the earth, then pass. You will not pass except by authority [from Allah]."
- Comes with Pros and Cons
 - Utility: Towards efficiency, inclusiveness and increased transparency
 - Risks: In term of Data security, Data privacy and Issues of consumer protection

"Innovation is the ability to see change as an **Opportunity** not a **threat**" (Steve Jobs)

WHAT CHANGES: FINANCIAL SERVICES & DIGITISATION

- With the financial industry moving towards digitisation, new dimensions of risk management have emerged.
 - Datafication: Tendency to record not only the critical data, but also everything else.
 - More gadget, more potential security breaches
 - Same thief, new method!
 - CIA of data security: Managing the confidentiality, integrity and availability of data
 - Legal risks surrounding data : From reputation to financial detriments

"Datafication" - the process of quantifying all information around us: our location, movement, communications, usage of devices, etc. which will allow us to use such information in new ways, such as in predictive analysis. This will help us further to unlock the implicit, latent value of the information.

V. Mayer-Schonberger and K. Cukier (2013) Big Data: A Revolution That Will Transform How We Live, Work and Think.



OUR "FINTECH" NEWS TODAY



fintech

Q All News Images O Maps Dooks More Settings Tools

About 79,300,000 results (0.24 seconds)

Investment news



WHAT REMAINS: THE NEED FOR FINANCIAL INTEGRITY AND CONSUMER PROTECTION

Financial inclusion

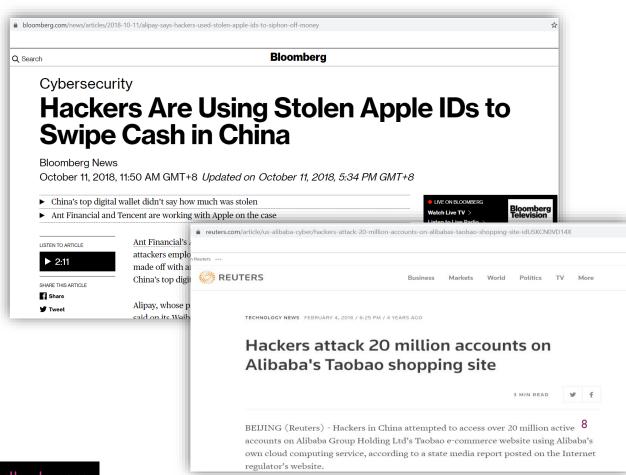
- Accessibility for all
- Affordability
- Technological adoption and adaptation

Financial integrity

- Security of transaction
- Security of data
- · Security of financial system

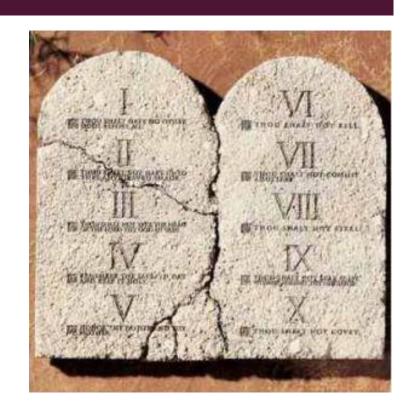
Consumer protection

- Fraudsters
- Industrial exploit
- Right to privacy
- Public security, social stability, economic resilience



WHAT REGULATORS SHOULD DO IN THE FACE OF INNOVATION

- "Law" is not rules written on stone
 - The law shall reflect the societal development
 - Creates certainty in business
 - Set up a correct expectation of social behaviour
 - Rectify the wrongs in society
 - Balances private and public objectives
- Innovation is disruptive in nature
 - A disruptive law is necessary



TAKING A DISRUPTIVE APPROACH: DISRUPTING THE DISRUPTIVES

- Instead of writing a strict rule of the game in the form of law and regulation, it is necessary to look for a rather flexible approach. Follow these steps:
 - Innovation does not work in legal vacuum: Define the existing legal framework that may help OR that may NOT help
 - Regtech must be responsive to technologies while remaining technology-neutral!
- Learn from Mistakes in the past: E-Hailing service, Cryptocurrency, OTT, e-Shop, e-News
- Consider all stakeholders (Multi-stakeholdersim)
- Start with trust!
 - In Malaysia, the Fintech Regulatory Sandbox (Sandbox) 2016 plays an important role in enabling the financial innovation can survive and sustain efficiently in a live environment. It also allows for a more targeted and efficient testing approach for high-impact innovations.
- Consider all modalities on regulations at all time!

FINTECH DOES NOT PLAY IN LEGAL VACUUM

Capital Markets and Services Act 2007

Financial
Services Act
2013

Central Bank of Malaysia Act 2009

Penal Code

Personal Data Protection Act 2010

Capital Markets and Services (Prescription of Securities) (Digital Currency and Digital Token) Order 2019

Islamic Financial Services Act 2013

Credit Reporting Agencies Act 2010

Anti-Money Laundering, Anti-Terrorism Financing and Proceeds of Unlawful Activities Act 2001

Communications and Multimedia Act 1998

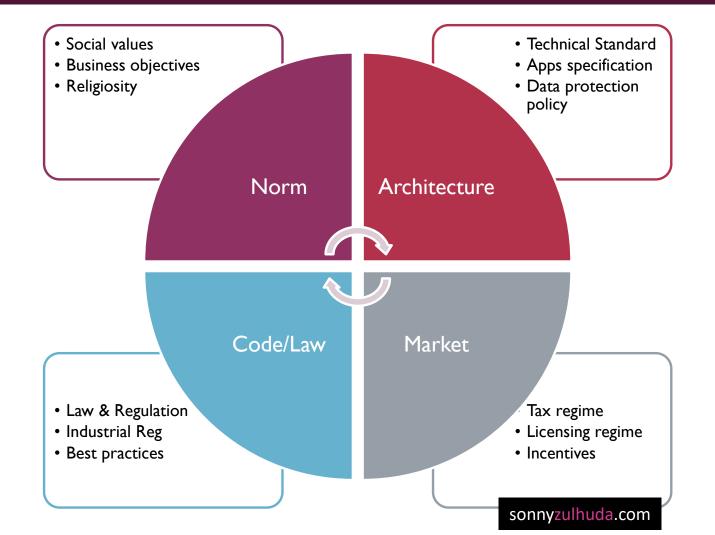
Guidelines on Recognized Markets SC-GL/6-2015(R3-2019) SME Tax Incentives by Craddle Fund, MDEC, etc

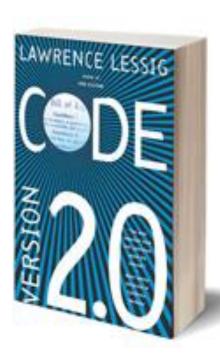
BNM Fintech
Regulatory
Sandbox 2016

Computer Crimes Act

Electronic Commerce Act 2006

LESSIGS' 4-MODALITIES APPROACH IN REGULATING FINTECH





THE BLINDSPOTS ON FINTECH: DATA GOVERNANCE

Fintech risks as blindspot: You know it's there, but you don't see it. It does not improve unless you make adjustment.

Blindspot #1:When too much is not good (data obesity)

Blindspot #2: Is it your data? Who's the owner?

Blindspot #3: Delegate the task, not the responsibility

Blindspot #4: Trust being abused



Lindungi Data Pribadi!

JAKARTA — Pemerintah dinilai perlu segera membuat regulasi perlindungan data pribadi setelah kasus jual beli data nasabah masih marak terjadi di masyarakat. Sementara itu, masyarakat juga diharapkan mendapatkan edukasi terkait dengan data privasi ini.

Jul 22to Marein, Agre Yane Damerth, & Analty Winselston, middle Minastroner

Direktur Eksekutif Indonesia ICT Institute Heru Sutadi mengatakan sestai dengan penaturan yang berlaku seperti di bank, data pribadi tidak boleh diperjualbelikan atau diberikan kepada pihak lain tanpa persetujuan orang yang bersamukutan.

Namun, dia tidak menampik manh terdapat kelemahan dari sisi prakteknya terutama dari kesadaran masyarakat yang manh rendah dan ketiadaan regulasi

yang kuat dan tegas.

Bagi Heru, manyarakat pedu terus diberikan edukasi dengan baik terkait dengan pemberian data pebadi teruama pada era digital ira. Selain ira, dia menekankan pentingnya definisi dan kategorisasi data pebadi utama seperti sidik jari, iris mata dan lainnya, yang harus dilindungi oleh hukum.

Dia mendai praktik pengampulan data oleh beberapa bank untuk layanan ter-

tentu harus diperhatikan.

"Saya pikir ini juga bukan tupa Kominto saja melainkan dari perbankan juga hartas tegas, tidak boleh mengambil data seperti itu atau disampaikan ke yang lain. Perlu diberi edukani dan diberi ketegasan," ujar Heru. Di sisi lain, data YLIG memperlikatkan aduan manyarakat terkait dengan penawaran produk perbankan lewat saluran telepon menempati peringkat teratas, dikuti permasalahan pembololan rekening.

Sularsi, Kemai Bidang Hukum dan Pengaduan Yayasan Lembaga Kemmanen Indonesia (YLKI) mengatakan pada era digital seperti sekarang konsumen sangat mudah melakukan tramaksi. Namun, laktor proteksi masih menjadi kekhawatiran bersama.

"Ketika konsumen memberikan data kepada perbankan atau marketing, sebenarnya sulah ada unsar kepercayaan di sana. Maka akan disesalkan sekali jiha data malah diperjual-belikan," tutumya, Rabu (23/8).

Dalam catatan YLKI, aduan mengenai penawaran kartu kredit dan asuransi lewat telemarketing menempati pusisi teratas, sekanjutnya pemoakan pendisibukan rekening maupun transaksi fiktif.

Sularsi mengasulkan, dengan tingginya aduan penawaran produk lewat saluran telepon, Otoritas Jasa Keuangan menduat atuma melanang semia penasuaran produk finansial lewat telemarketing.

"Ada [pihak] marketing yang menawarkan kredit atau kartu kredit di bank. "K "K ternyata produknya ada di bank. "K. Padahal, lewat saluran telepon konsumen tidak berada pada posisi sap untuk diberi pertawaran," katanya.

YLIG pen ikut menyesalkan praktik jual-beli data konsumen, yang belakangan aktivitat tersebut diungkap oleh Direkonst Tindak Pidana Ekonomi dan Khusus Bareskrim Polri, yang telah menangkap jaringan penjualan data masabah.

Tersangka pelaku menjual data nasabah melalu Internet secara paket, mulai dari Sp 350,000 hingga jutaun rapiah. Berdasurkan hasil penyidikan sementan, tersangka mengumpulkan data nasabah dari bagian pemasaran sesundah bank sejak 2010.

Direktur Tindak Pidana Ekonomi Khama Brigjen Pol. Agung Serya, sepesti dikutip dari ketenangan tertulia, Rabu (23/8), menyebutkan tersangka mulai mengiklankan penyadan data nasahah sejak 2014 medalu beberapa situs Internet, alam Facebook dengan nama "Bang hap Ahmad", dan akun pada situs penyadan ordine.

Tersongka mematisk harga bervariasi untuk paker data nomor telepon nasabuh mulai dari Rp.350.000 untuk. 1.000 nomor nasabah hingga RpT, 1 juta untuk paker data berisi 100.000 nasabah.

TIDAK TOLERIR

Sementara itu, pum hunkir mendai industri perbankan tidak menoletir adanya penjualan data nasabah.

Direktur PT Rank Rakyat Indonesia (Persero) This Randi Anto menyebutkan manajemen punya ande of conduct yang dapat mencegah terjadinya pencarian data ataupun penggunaan data yang tidak sesuai dengan ketentuan.

"Sotem pengawasan akan menangkap seandainya ada pekerja yang melanggar kotanggar

Sejumlah Aturan Mengenai Perlindungan Data Nasabah/Konsumen

- L. UU No. 43 Tahun 2009 tinitang Kasirilpan
- UU No. 10 Tehun 1998 funtang Perubahan atas UU No. 7 Tahun 1992 Sentang Perbankan
- Sunst Edaran Blank Infonesia Nomor M/M/DK SP Tahun 20 14 Tentang Tata Cara Pelaksanaan Perlindungan Kersuman Jasa Sht en Persbayanan
- Sunst Edaran O'toritas Jasa Kesanga ti Namer 14/1800.00.00(00) 4 Telsun 2014 Tentang Kerahasiaan dian Kesmanan Data denyetas Informasi Prib ad Kenasanan
- POUK Numer VPOUK DT(0013 tentang Perfit dangan Konsumen Sektor Jasa Keyangan.
- Peraturan Sank Indonesia Nomor M/UPB U20 14 Tanun 2014 Tantang Perilindungan Korsumen Jaisa Sistem Peraturan Peraturan

- Paretures Bank Indenesia Nomor Tris/PSI/20 OS Texus 20 OS Texturing Transparanti informed Produk Bank dan Penggunaan Data Pribadi Nasahah
- Pentiuran Bank Indonesia Nomer 2/19/PBI/2000 tentang Persyanatan dan Tata Cara Peniberian Perintah atau lain Tertulis Membuka Rehadia Bank
- Rancanger Persture Mented Kamunitasi dan Informatika taritang Pertindungan Data Pribadi dalam Sistem Elektron 8**

10, Rancanger UU Perfindunger Data Priba d*

urnlah Nominal Transaksi

Perkembangan Jumlah Kartu Kredit dan Nominal Transaksi Periode Juli 2013 - Juli 2017

Oralian.	2013	2014	2015	2:016	2017
Juniah Kertu (per juta kertu)	1476	15,55	16,65	16,99	26,015
Nominal NEal (Rp. #1liun.)	12766	54.2,15	161,82	161,26	170,9

Desire from their, first property court

sistem pengawasan yang ketat dari ma-

DESCRIPTION OF THE RES.

Direktur PT Bank Central Asia Thk. Sautono Licm menegankan pemeruan pun akan bertindak sangat tegas terkait dengan adanya okrum nakal yang berani melakukan sual-beh data nasabah.

Santoso menyatakan proses penjualan kami kredit, baik melaksi telamarketing dan direct marketing, memiliki standar operasional dan ketentuan baku dengan Adapun, General Manager Asosiani Kartu Kredit Indonesia (AKKI) Steve

Kartu Kredit Indonesia (AKKI) Steve Martha mengatakan pihakma masih mendalami lebih lanjut kassi tersebut. Namun, pada intinya aksi jual beli data ini tidak dibenarkan. cheya masinbasi Da inetabah 🏻

sonnyzulhuda.com

Director Stabilis Source

Primordistian S Primore



terww.kompas.18

Planar Tools Chilesa



Rekapitulasi Provinsi Diperpanjang



Tidak Cukup 5 Persen

Data Dipakai untuk Kejahatan

jego roman demonfazikan untuk malak kelabaran

potes, some - to -- Performages Data Prilindi Nacabah

Ganti Nomor sampai kena Tipu

Provingsmoon Guifning Trif Clivingsvic Etherni



Data Pribadi Dijual Bebas

buts policely disease by they centure repeticlingan permanining produkperfections. Temps permaneron Larencoverte dans progresse breek, etitluga arrititus.

Martin Serve Spice States - State State



DEC-ROLLESS FRANCE

Dari Alamot hingga Nama Roc Kanthing

sonnyzulhuda.com

Jebol, Sistem Pengamanan KTP Elektronik

Liputan investigasi Kompas mengungkap peredaran dan jual beli blangko kartu tanda penduduk elektronik asli di pasaran.

JAKARTA, KOMPAS - Blangko KTP elektronik asli dengan spesifikasi resmi milik pemerintah beredar dan diperjualbelikan di pasaran. Padahal, sebagai dokumen negara, blangko KTP-el tidak boleh beredar di pasaran dan diperjualbelikan.

Tim liputan Kompas memperoleh blangko KTP-el asli di Pasar Pramuka Pojok, Jakarta Pusat, dan salah satu penjual di platform e-dagang Tokopedia. Blangko tersebut identik dengan blangko resmi yang hanya dikeluarkan pemerintah. Hologram di blangko pun menyerupai hologram KTP-el asli.

Saat ditempelkan ke telepon pintar yang dilengkapi NFC (peranti komunikasi antardua perangkat), cip di semua blangko mengidentifikasi diri sebagai NXP, sama dengan cip di KTP-el

Sanksi Pemalsuan KTP Elektronik

Pasal 96:

Setiap orang/

hak mencetak,

Dokumen

menerbitkan, dan

Kependudukan

dikenal ancaman

Kurungan

penjara

@ Denda paling

maksimal 10

banyak Rp 1

atau mendistribusikan blangko

lembaga yang tanpa

Pengujian secara teknis yang dilakukan ahli cip Eko Fajar Nur Prasetyo mengidentifikasi

UU No 24

Tahun 2013

tentang Administrasi

Kependudukan

Pasal 96 dan

>> BACA JUGA DI KOMPAS.ID

klik.kompas.id/blangkoktpel

bahwa satu blangko dan satu KTP-el yang diperoleh dari Pasar Pramuka Pojok serta satu blangko yang diperoleh dari Tokopedia memakai cip NXP.

Eko mengungkapkan, blangko yang diperoleh tim Kompas saat diuji mengidentifikasi diri sebagai cip NXP. Pengujian itu menggunakan mesin pembaca kartu (card reader).

"Sesuai hasil pengujian, cip itu mengaku sebagai NXP," kata Eko, yang kerap dihadirkan KPK sebagai saksi ahli cip dalam sidang korupsi KTP-el.

Menurut dia, ketiga blangko yang diuji 80 persen berfungsi normal. "Cip itu (di ketiga blangko KTP-el yang diuji) mau bicara dengan (card) reader

(Bersambung ke hlm 15 kol 3-5)

Pasal 96A:

Setiap orang/

hak mencetak,

kan Dokumen

Kependudukan

dikenai ancaman

Kurungan

penjara

Denda paling banyak Rp 1

maksimal 10

menerbitkan, dan

atau mendistribusi-

lembaga yang tanpa

Teknologi KTP Elektronik



sesual dengan ISO 7810 dengar form factor ukuran kartu kredit, vaitu 53.98 mm x 85.60 mm.



Struktur KTP-el terdiri atas sembilan layar yang akan meningkatkan pengamanan dibandingkan KTP konvensional.



Tahan terhadap pembengkokan ningga 3.000 kali.



Tahan suhu tinggi hingga 75 deraiat celsius selama 24 iam.

KTP-el dilindungi dengan keamanan pencetakan

- · relief text
- microtext · filter image
- · invisible ink
- · warna yang berpendar di bawah sinar ultraviolet
- · anti-copy design

15

THE STRAITS TIMES

over the Auditor-General's Office. The tiper gives a run-down of the and Services tribible, and notes, in vices, corney their own wors, and UGOs report on the troubled ac-most significant findings against. bold lements, that PMSS was "set guy themselves, with little checks."

Is that your NAME, ADDRESS, **PHONE NUMBER** in the dump?

Firms throw out documents with personal data without shredding

Senior Correspondent

Personal information is still being improperly collected, used and disposed of, even though there is a new law to protect personal data. Seventy organisations - especial-lose in retail, healthcare and

Ty - are under investigation Y complaints that they Vaddresses and other per-vation for marketing Secred identity card val details without

which came vy can be

eign banks and other companies, and they included reports on indus-trial projects in Japan and Indonesia and project progress reports.
All were marked confidential or

All were marked confidential or strictly confidential.

There were also printouts of e-mail with addresses, names and telephone numbers. The docu-

ments were dated from 2013 to this Access to the rubboth bons was Access to the rules of time was eary. One karung guni man, who was seen sorting out the docu-ments into neat piles, said he would will them to recycling compa-

Among other things, The Sun-day Times found photocopies of pusports, resumes of various profes-

sionals and details of commissions paid to properly agents.

Most of the documents had the names and logos of local and for-

necycle paper with personal

Cosporate information does not come under the purview of the commission, which is concerned



detikNews / Berita / Detail Berita

A record check in the flattles Place area found that documents containing personal data are being thrown out in the photocopies of paraports, resumes of various professionals and details of commissions paid to property agents in the

TIPS ON DATA PROTECTION

specialist Straits Interactive has conducted audits of 50 companies to check if they are ready to comply with the new

It came up with this checklist after finding free common areas of weakness.

document disposal service to dispose of documents containing personal data.

■ DO NOT throw away or

■ DO keep all documents with personal information in

copiers, fax machines or printers telling users to take all personal documents when they

. DO NOT leave behind passports, identity cards, resumes and other confidential information at these machines

■ DO record and track who has drawers where confidential files

. DO NOT leave keys hanging in keyboles.

■ DO ensure that screen severs



2019/08/01 22:37:40 WIB

Home

NEW

Berita

Adsmart · Most Popular · Hoax or Not · Suara Pembaca · detikPemilu ·

Round-Up

Daerah Internasional Fokus Kolom Blak blakan

Pro Kontk

Follow detikcom f in a







New Norm in Data Governance



RESETTING DATA CULTURE

Information society requires a resetting of ethical and cultural adjustment towards data



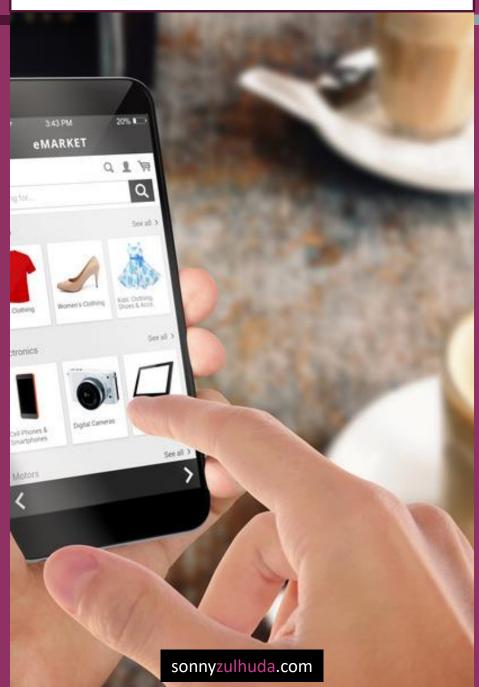
DATA DUE DILIGENCE

Data is viewed as assets that have to be managed and protected within appropriate measurable steps



NEW OFFENCES

Restrictions are introduced to reshap the new expected behaviour on data





FULL DATA LIFECYCLE

PDP deals with the full processing from collection to disposal. Confidentiality or security is only a component of it.



DATA STAKEHOLDERS

Data Is not "owned" by the data user. Individuals' rights are involved.



DATA ACCOUNTABILITY OVER SOVEREIGNTY

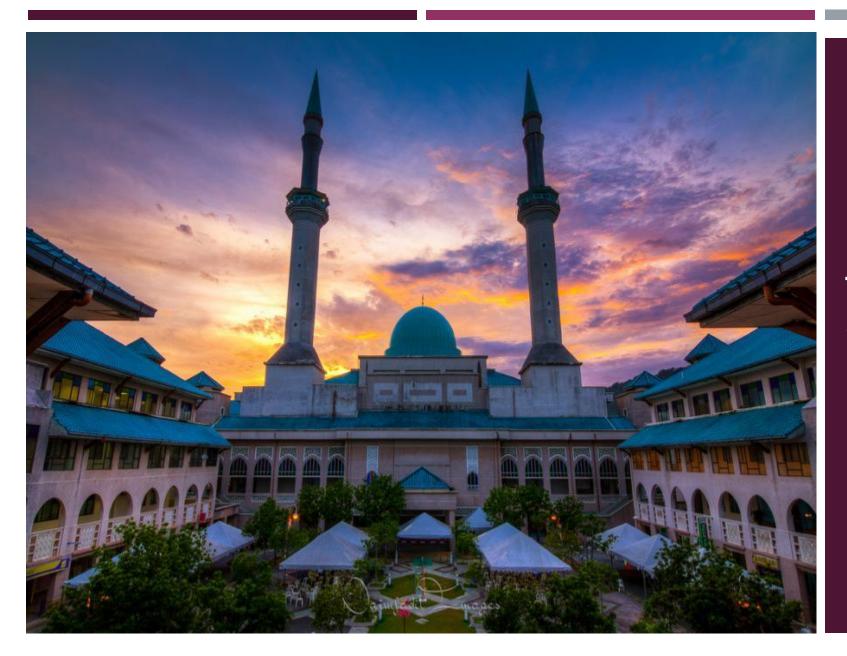
While it is important to preserve data sovereignty, data accountability is the priority

Prinsip Perlindungan Data di RUU PDP- Pasal 17(2): Pemrosesan Data Pribadi dilakukan:

- a. Secara terbatas dan spesifik, sah secara hukum, patut, dan transparan.
- ь. sesuai dengan tujuannya,
- c. dengan menjamin hak Pemilik Data Pribadi;
- d. secara akurat, engkap, tidak menyesatkan, mutakhir, dan dapat dipertanggungjawabkan;
- e. dengan melindungi keamanan Data Pribadi dari pengaksesan, pengungkapan, dan pengubahan yang tidak sah, juga dari penyalahgunaan, perusakan, dan/atau kehilangan Data Pribadi;
- f. dengan memberitahukan tujuan dan aktivitas pemrosesan, serta kegagalan pelindungan Data Pribadi;
- g. Data Pribadi dimusnahkan dan/atau dihapus setelah masa retensi berakhir atau berdasarkan permintaan Pemilik Data Pribadi; dan
- h. secara bertanggung jawab dengan memenuhi pelaksanaan prinsip pelindungan Data Pribadi

CONCLUDING REMARKS

- Innovation shall remain sustainable: Fintech today, more tomorrow!
- In anticipating the Internet, AI an blockchain technology, Law needs to be disruptive, leaving its traditional limitations as much as possible
- In the backbone of the innovation is DATA including trade secrets, IPR and personal data. These areas cannot be let without rules of the game.
- With so much data and interest at stake on Fintech, **Trust Governance** is another critical prerequisite.
- For this Trust and Data Governance to work in such a complicated structure, government intervention is critical in providing the best legal and regulatory framework for Fintech.



THANK YOU

DR SONNY ZULHUDA

sonny@iium.edu.my sonnyzulhuda.com