

WEEK 9:

Ethic & Information Security
MIS Business Concerns

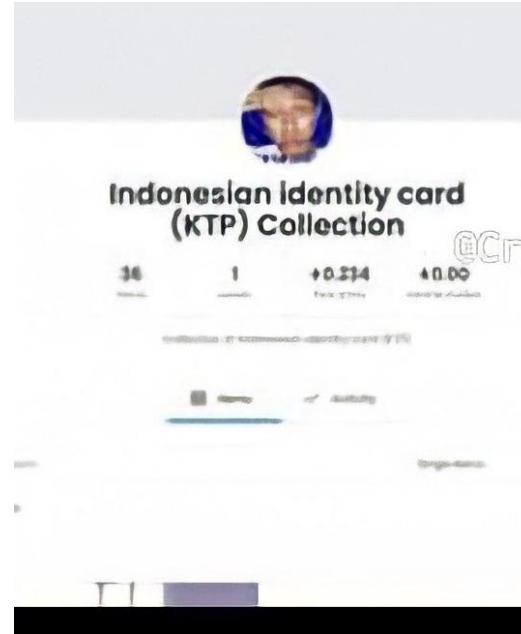


MIS

Management
Information
System

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GOZALI EFFECT



Most ridiculous digital information ethical problem..

Also made me sad at the same time



DEFINITIONS

(Baltzan, 2020)

ethics The principles that guide people behavior toward others within community.

information ethics Govern the ethical and moral issues occurred from the usage and other related activities of information technologies, as well as the creation, collection, duplication, distribution, and processing of information itself (with or without the aid of computer technologies).

confidentiality The assurance that messages and information remain available only to those authorized to view them.

privacy A person's right to be to have own circumstance, time and other condition whenever the person want to be, to have control over personal possessions, and not to be observed without the person's consent.



DEFINITIONS

(Baltzan, 2020)

copyright The legal protection afforded an expression of an idea, such as a song, book, or video game.

counterfeit software Software that is manufactured to look like the real thing and sold as such.

digital rights management A technological solution that allows publishers to control their digital media to discourage, limit, or prevent illegal copying and distribution.

intellectual property Intangible creative work that is embodied in physical form and includes copyrights, trademarks, and patents.

patent An exclusive right to make, use, and sell an invention granted by a government to the inventor.

pirated software The unauthorized use, duplication, distribution, or sale of copyrighted software.



Pirated Movie / Music

All activities must be conducted within

ETHICAL MANNER

- Personal Information is extremely Important, especially for Western people (Also for everyone)
- Justin's Story

This chapter focus on:

Collect
Capture
Store
Use
Protecting



Is there any type of information that we don't have to treat it ethically ?

NO.

every single information data has to be protected unexceptionally

Not just a nice thing to do to our customer or Employee
But, is required by the law. Proof ?



BSSN
Est: 2017
Function: Conduct Cyber security in Indonesia



CISA
Est: 2018
Function: to understand, manage, and reduce risk to our cyber and physical infrastructure. Created by President Donald Trump

Do customers really care about data privacy when they are looking to spend money? **YES!**

According to a global survey of

6,000
customers



**Trustful
Company**

INCREASES



Customer satisfaction



Willing to spend
(Shop) more



**STOCK
PRICE**

Market summary > Facebook, Inc. Common Stock
NASDAQ: FB - Mar 19, 2:21 PM EDT

172.32 USD **↓12.77 (6.90%)**

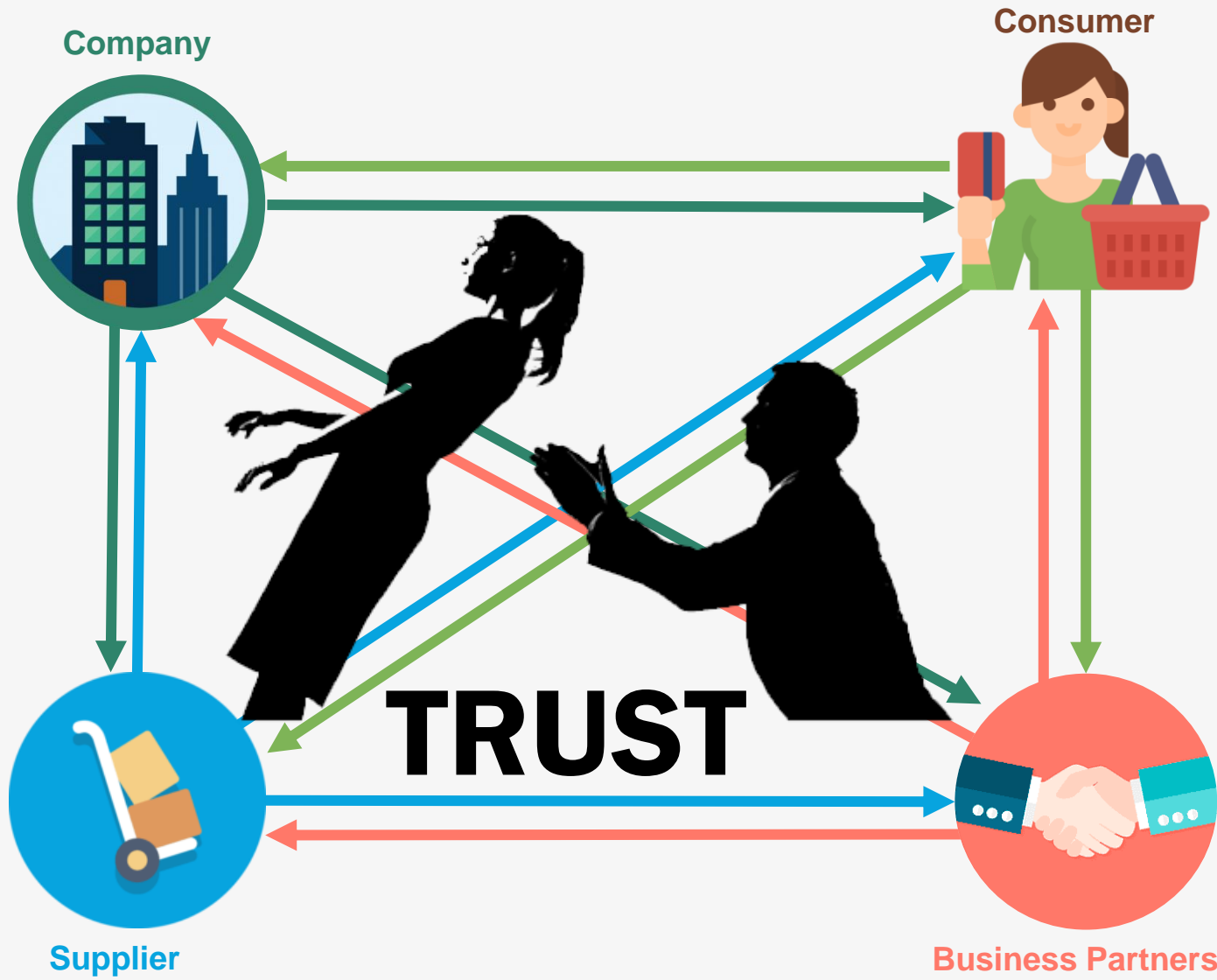
1 day 5 day 1 month 3 month 1 year 5 year max



Open 177.01
High 177.17
Low 170.06

Mkt cap 500.59B
P/E ratio 27.97
Div yield -

**In 2018, FB Biggest drop in a
single day over 5 years**

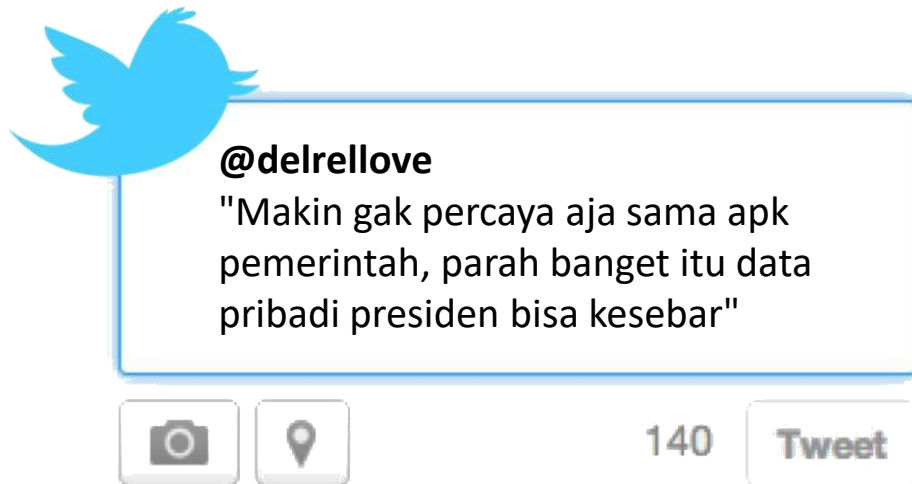
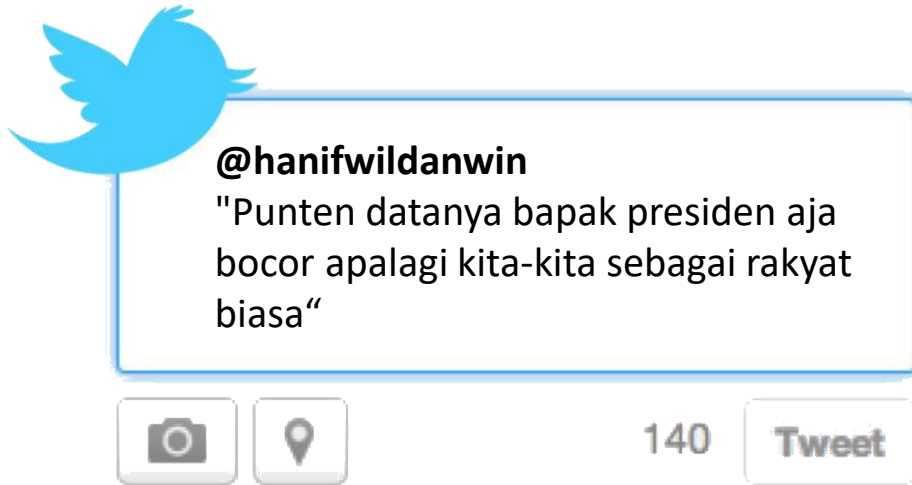


- **Trust among companies, customers, partners, and suppliers is the support structure of e-business.**
- **Privacy is one of its main ingredients.**
- **Consumers' concerns that their privacy will be violated because of their interactions on the web continue to be one of the primary barriers to the growth of e-business.**

OUR PEOPLE'S AWARENESS OF INFORMATION ETHIC AND SECURITY IS **VERY LOW**



Younger Generation **MUST** develop better awareness and understanding of this issue because they are all technology users



Breach Incident of Official's Personal Information



HOW DO WE **FIX** THE SITUATION ?

Are we going to **analog era** again to keep our information safe?



METAMASK

Metamask is suggesting to combine analog and digital security

“I just want you all to be aware to NEVER have a digital copy of your mnemonic or private key,” the user, “tycooperaow”, wrote. MetaMask often advises users to keep their seed phrases offline, like on a piece of paper, and stash it somewhere safe.

(Genç, 2021)



The principles and standards that guide our behavior toward other people.



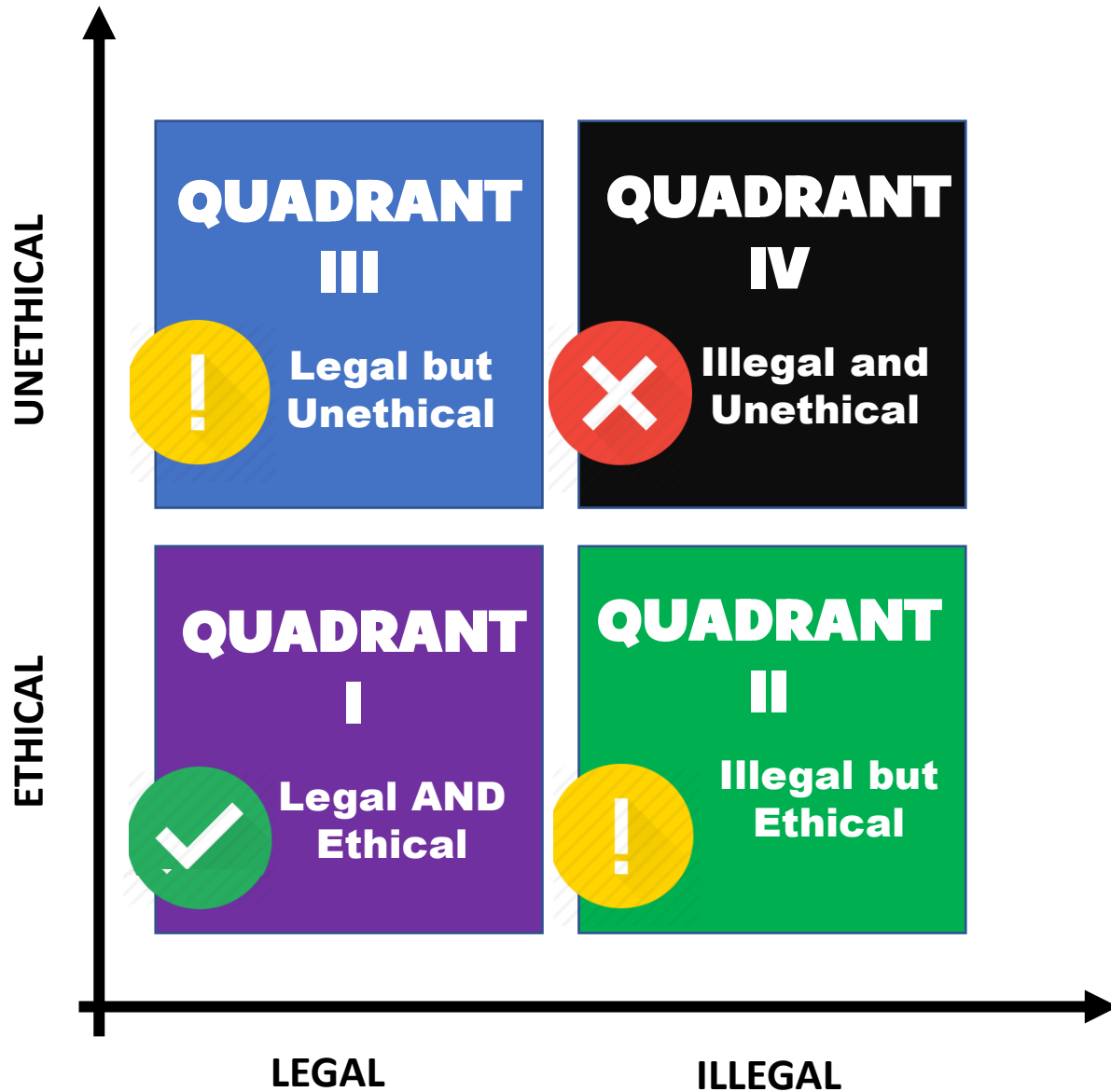
Govern the ethical and moral issues arising from the development and use of information technologies, as well as the creation, collection, duplication, distribution, and processing of information itself (with or without the aid of computer technologies).



The right to be left alone when you want to be, to have control over your personal possessions, and not to be observed without your consent.



The assurance that messages and information remain available only to those authorized to view them.

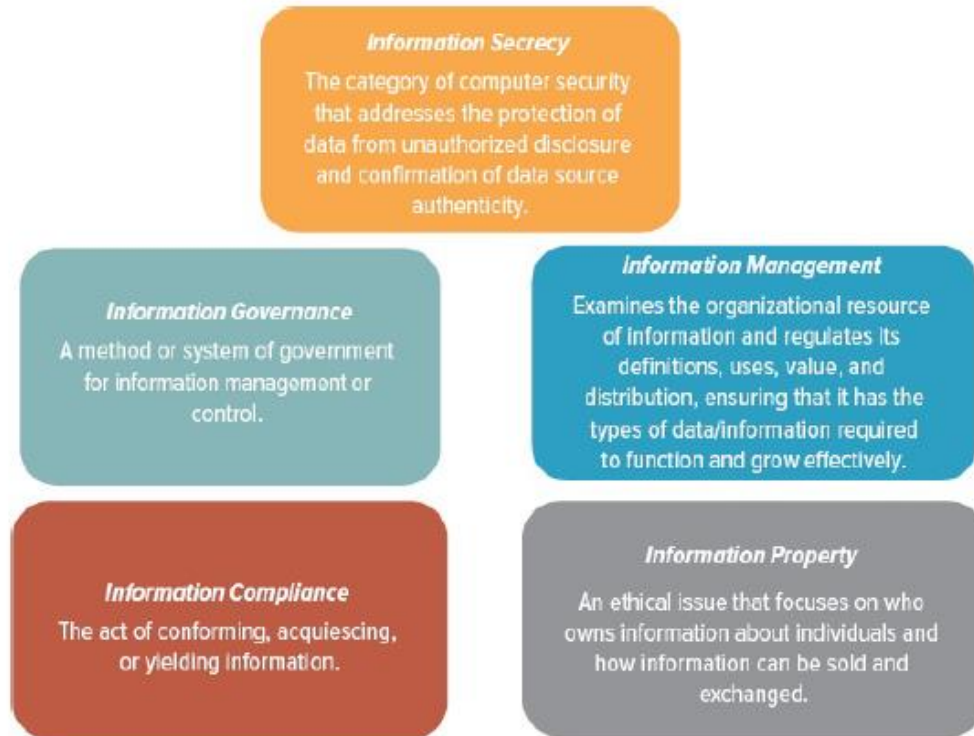


QUICK PRACTICE

1. Paying under minimum wage **QII**
2. Child labour **QIII**
3. Employing foreigner when his/her working permit is still on process **QII**
4. Selling Alcoholic drink at school **QIV**
5. Giving a cashback to a complaining customer **QI**

INFORMATION DOES NOT HAVE ETHICS; PEOPLE DO

Ethical Guidelines for Information Management



INFORMATION SECRECY

Ethical Guideline about data protection; data authorization; source authenticity

INFORMATION GOVERNANCE

An Ethical Guideline system that regulate the control and management of Information

INFORMATION MANAGEMENT

Ethical Guideline about the definition, uses, value, distribution of Information

INFORMATION COMPLIANCE

Ethical Guideline about how people should comply to the ethic when conforming, approving and producing an information

INFORMATION PROPERTY

Ethical Guideline that focuses on the owner of personal information and regulate how those can be sold/distributed

Since Ethic is an unwritten code ... So it brought alive into policies

(intangible/invisible)



Good Management

“Treating sensitive corporate information as a valuable resource”



Responsible Management

“Building a corporate culture based on ethical principles that employees can understand and implement”

E-POLICIES



“Policies and procedures that address information management along with the ethical use of computers and the Internet in the business environment” Baltzan, 2020

E-POLICIES IN A NUTSHELL

Ethical Computer Use Policy



“General principles to guide computer user behavior”

Information Privacy Policy

If an organization doesn't process an individual's data in the correct way, it can be fined



General Data Protection Regulation



Indonesia ?

- Not using the service as part of violating any law.*
- Not attempting to break the security of any computer network or user.*
- Not posting commercial messages to groups without prior permission.*

Acceptable Use Policy



- For instance, a sent email is stored on at least three or four computers.*
- Simply deleting an email from one computer does not delete it from the others*

A policy that outline the corporate guidelines or principles governing employee online communications

The practice of employers overseeing the activity of their employees in the workplace with the goal of ensuring that workers are being productive (1). In this case, a monitoring the digital activities.

(1) (Stanley, 2021)

Email Privacy Policy



Social Media Policy



Domino's Pizza incident

Workplace Monitoring Policy



GDPR-like Law in other countries



Personal Information Protection Law (PIPL) of the People's Republic of China (2021)



Personal Information Protection and Electronic Documents Act (PIPEDA) of Canada (2000)



Malaysia's Personal Data Protection Act 2010

And many more...

RUU PDP:



Jenis Data Pribadi yang Wajib Dilindungi

Pemerintah bersama DPR RI resmi membahas Rancangan Undang-Undang Perlindungan Data Pribadi (RUU PDP) yang akan menjadi **landasan hukum perlindungan data pribadi di Indonesia**

72 pasal dan 15 bab
Isi RUU PDP

24 Januari 2020
RUU PDP ditandatangani Presiden RI

Oktober 2020
Target RUU PDP selesai

Jenis-Jenis Data Pribadi yang Dilindungi

Data pribadi bersifat umum

- Nama lengkap
- Jenis kelamin
- Kewarganegaraan
- Agama
- Data Pribadi yang dikombinasikan untuk mengidentifikasi seseorang



Data pribadi bersifat spesifik

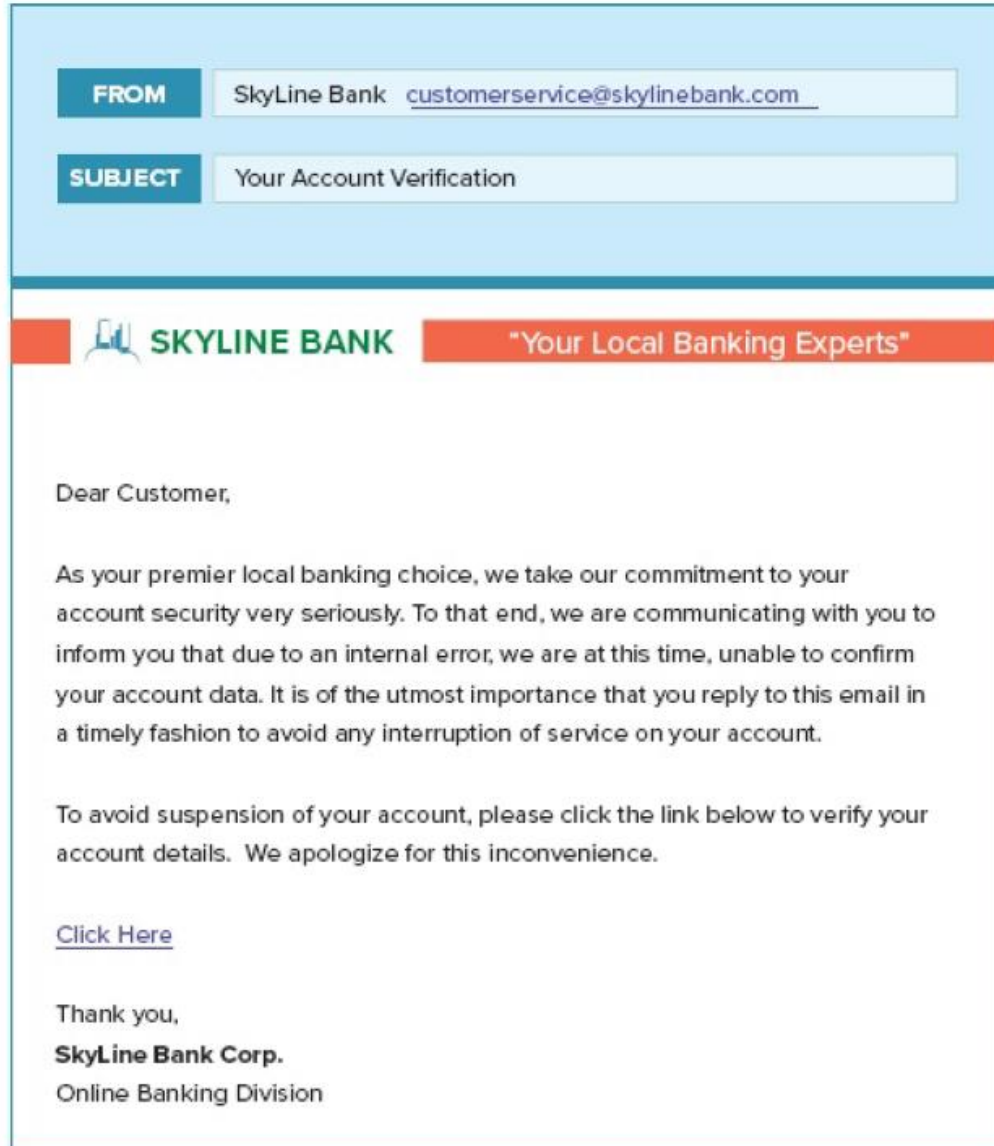
- Data dan informasi kesehatan
- Data biometrik
- Data genetika
- Kehidupan/orientasi seksual
- Pandangan politik
- Catatan kejahatan
- Data anak
- Data keuangan pribadi
- Data lain sesuai peraturan perundang-undangan



Seseorang yang mengungkapkan atau menggunakan data pribadi yang bukan miliknya akan dikenakan pidana penjara tujuh tahun atau denda maksimal Rp 70 miliar

CYBERATTACK

Example of Phishing



TYPE OF CYBERSECURITY ATTACK

1. **Malware** uses a vulnerability to breach a network when a user clicks a “planted” dangerous link or email attachment, which is used to install malicious software inside the system.(1)
2. **Virus** is software written with malicious intent to cause annoyance or damage (2)
3. **Worm** The primary difference between a virus and a worm is that a virus must attach to something, such as an executable file, to spread. Worms do not need to attach to anything to spread and can tunnel themselves into computers. (2)
4. **Trojan**
5. **Ransomware**
6. **Spyware**
7. **Adware (not really a cyberattack)**
8. **Scareware**
9. **Denial-of-Service (DOS) attack**
10. **Phising**



(1) (Fichtner, 2022)

(2) Baltzan, 2020

CYBERATTACK

10 BIGGEST CYBER ATTACKS IN HISTORY

1. The Melissa Virus

One of the earliest and biggest cyber threats was started by the Melissa Virus. In 1999, the Melissa Virus was unleashed by programmer David Lee Smith by sending users a file to be opened by Microsoft Word. The virus caused severe destruction to hundreds of companies, *including Microsoft*. It is estimated that repairing the affected systems cost around \$80M.

2. NASA Cyber Attack



In 1999, 15 year old James Jonathan was able to hack and shutdown NASA's computers for 21 DAYS! Around 1.7M software were downloaded during the attack, which cost the space giant around \$41,000 in repairs.

3. The 2007 Estonia Cyber Attack



4. A Cyber Attack on Sony's PlayStation Network



5. Adobe Cyber Attack



6. The 2014 Cyber Attack on Yahoo



7. Ukraine's Power Grid Attack



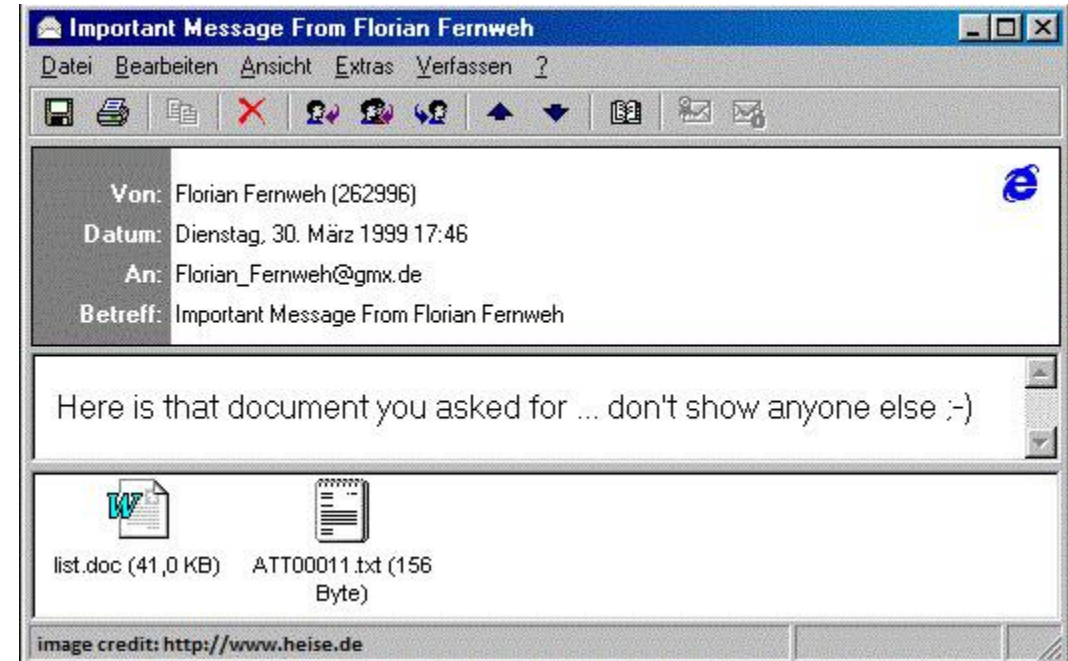
8. 2017 WannaCry Ransomware Cyber Attack

9. A Cyber Attack on Marriott Hotels went unnoticed for years



10. The biggest password leak yet

The Melissa Virus







Protecting Company/Organization Information



Protection of
Personal
Information



Protection
Company/
Organization
Information

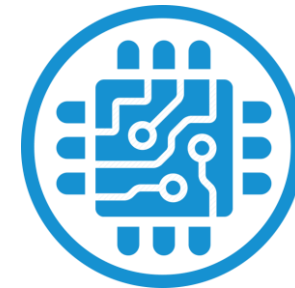
- Patents
- Expertise of worker
- Secret recipe for a food/bev product, 
- High level of business training 
- Transactional information 
- Analytical information 
- And more..

2 LINE OF DEFENSES TO PROTECT THESE



FIRST LINE OF
DEFENSE:
PEOPLE

*Ex:
Policy, Security plans*



FIRST LINE OF
DEFENSE:
TECHNOLOGY

*Ex:
Antivirus, Infrastructure
upgrade, etc*

SEE ?

We have been presented a list of MIS Business Concerns

THUS,

the ethic & security of information is extremely important for us.

- **Unawareness of Information Ethic**
- **Data Breach**
- **Information Misusage**
- **Trust Issues**
- **Personal Data Privacy**
- **Cyberattack**
- **And more...**

STUDENT ACTIVITY

BUSTED

Information: Does It Have Ethics?

A high school principal decided it was a good idea to hold a confidential conversation about teachers, salaries, and student test scores on his cellular phone in a local Starbucks. Not realizing that one of the students' parents was sitting next to him, the principal accidentally divulged sensitive information about his employees and students. The irate parent soon notified the school board about the principal's inappropriate behavior, and a committee was formed to decide how to handle the situation.

With the new wave of collaboration tools, electronic business, and the Internet, employees are finding themselves working outside the office and beyond traditional office hours. Advantages associated with remote workers include increased productivity, decreased expenses, and boosts in morale as employees are given greater flexibility to choose their work location and hours. Unfortunately, disadvantages associated with workers working remotely include new forms of ethical challenges and information security risks.

In a group, discuss the following statement: Information does not have any ethics. If you were elected to the committee to investigate the principal's inappropriate Starbucks phone conversation, what types of questions would you want answered? What type of punishment, if any, would you enforce on the principal? What types of policies would you implement across the school district to ensure that this scenario is never repeated? Be sure to highlight how workers working remotely affect business along with any potential ethical challenges and information security issues.



End of Presentation

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