

Asia-Pacific

AI in Cybersecurity for the Philippines' Digital Future

October 30, 2025

By Evangeline J. Esquejo

About the Speaker

Evangeline J. Esquejo

- Senior Consultant and Director for Advisory and Consulting at UBQTY Inc.
- 25+ Years in IT Leadership roles in the IT, Logistics, Manufacturing, and Public Sector industries
- Certified Information Security Manager (CISM) since 2014
- Certified in Governance for Enterprise IT (CGEIT) since 2013
- Gold member, ISACA
- Certified in ITIL 4 Foundations, accredited Trainer
- Certified in ITIL 4 Strategist – Direct, Plan, and Improve
- Past President, ITSM Forum - Philippines
- Global MBA, University of Western Australia (Ongoing)
- Post-Grad Degree in Business Management – Asian Institute of Mgt.
- BS Business Administration – University of the Philippines

Email : vangie@ubqty.net



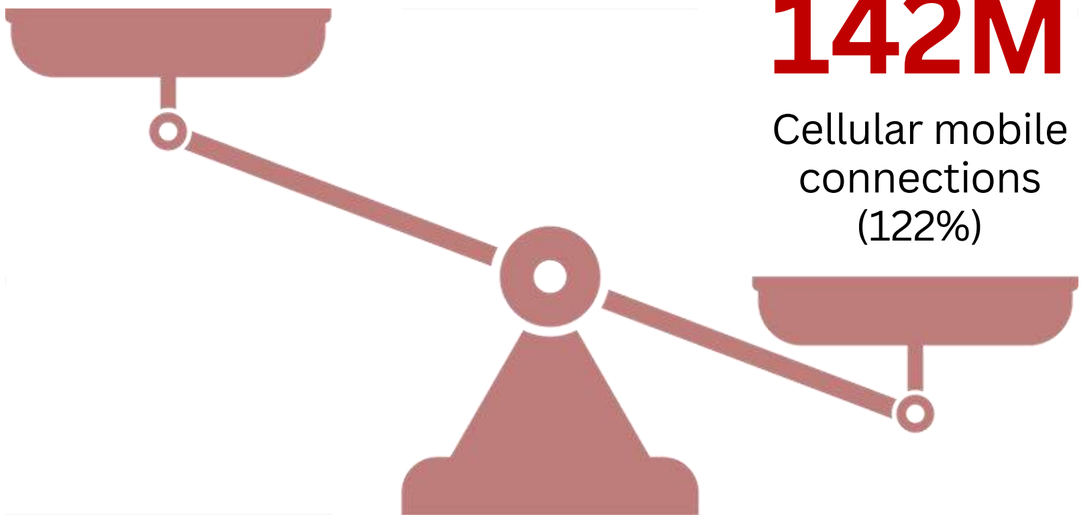
Agenda

- Philippines: State of Digital
- Cybersecurity Landscape in the Philippines
- AI in Cybersecurity
  - AI as an Ally in Cybersecurity
  - AI as a Threat Driver
- Future Outlook
- Q&A

The Philippines’ State of Digital

The Philippines State of Digital

115.8M
Population



142M
Cellular mobile connections
(122%)

2025

97.5M
internet users
(84%)

90.8M
social media user identities
(79%)

Source: https://datareportal.com/reports/digital-2025-philippines

The ASEAN State of Digital

	Country	Population	Mobile Connections	Internet Users	Social Media Identities
	• Indonesia	284M	356M (125%)	212M (74.6%)	143M (50.2%)
	• Malaysia	36 M	43.3M (121%)	34.9M (97.7%)	25.1M (70.2%)
	• **Philippines**	**116M**	**142M (122%)**	**97.5M (84%)**	**90.8M (78%)** **2nd****
	• Singapore	5.86M	10.5M (179%)	5.61M (95.8%)	5.16M (88.2%)
	• Thailand	71.7M	99.5M (139%)	65.4M (91.2%)	51.0M (71.1%)
	• Vietnam	101M	127M (126%)	79.8M (78.8%)	76.2M (75.2%)

* All figures in Millions
** In absoute amount
*** Not in the table are Brunei, Cambodia, Laos, and Myanmar

Source: https://datareportal.com/reports/digital-2025-[country]

The Philippines – Online Government Services



Key enablers:

- Enhanced connectivity
- Digital payments adoption
- Government reforms
  - RA 11032 - Ease of Doing Business Act
  - National Cybersecurity Plan 2023-2028 (NCSP)
  - National ICT Ecosystem Framework (NICTEF)
  - e-Government Masterplan
  - Philippine Development Plan 2023-2028

Source: https://kpmg.com/ph/en/home/insights/2024/12/digital-transformation-for-2025-and-beyond.html

The Philippines – e-Commerce Market



USD 28B

Total e-Commerce
Volume in 2024

USD 40.5B

Total e-Commerce
Volume Projection by 2027
(145%)

CAGR = 13%

Source: https://paymentscmi.com/insights/philippines-ecommerce-market-data/

The Philippines – Digital Economy



11.3M
Workers



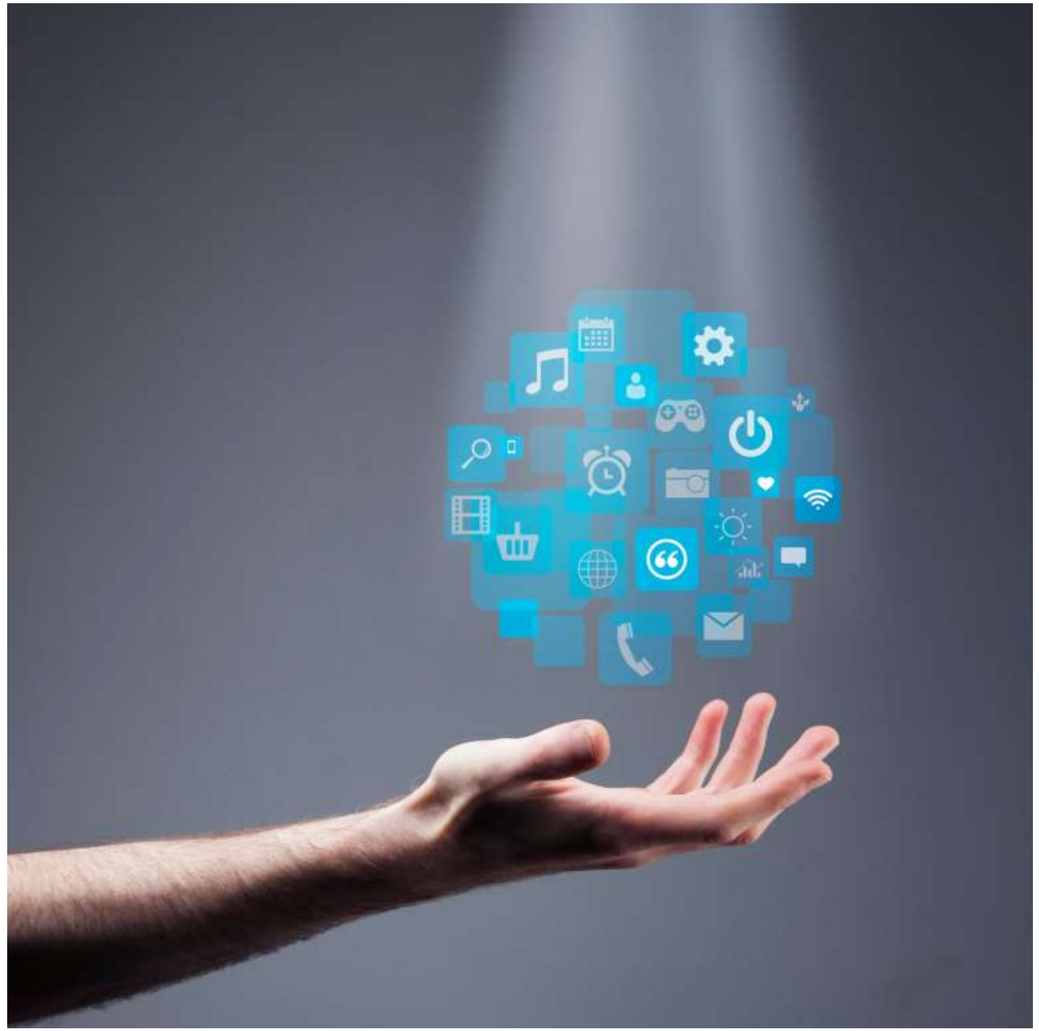
USD 38.5B*
Digital Economy in 2024

- Digital-enabling infrastructure,
- Digital content and media,
- E-commerce, and
- Government digital services

USD 150B**
by 2030

Sources:
** https://psa.gov.ph/statistics/digital-economy/node/1684076142*
*** 2023 e-Conomy SEA Report*

Digitization/Digitalization as Driver of CS Risks



- Larger attack surface
- Convergence of technologies
- Increased reliance on new technologies
- Human factors
- Data management challenges

The Philippines’ Cybersecurity Landscape

Alarming State of Cybersecurity

Metric	Statistic	Source	Timeframe
Compromised Credentials	315,000+	Viettel Threat Intelligence	H1 2024
Phishing Attacks	17,456+	Viettel Threat Intelligence	H1 2024 ↑ 23%
Organizations with Breaches	84%+	BlueVoyant	2024
Average Breaches per Org.	3.13	BlueVoyant	2024
Hack-and-Leak Operations	55%	Nucamp	Early 2024
Misinformation Campaigns	35%	Nucamp	Early 2024
DDoS Attacks	10%	Nucamp	Early 2024

Source: https://www.philsecsummit.com/the-alarming-state-of-cybersecurity-in-the-philippines-trends-and-insights-from-2024/

Philippines - Prone to Cyber Attacks

MANILA BULLETIN

Philippines World Business Opinion Lifestyle Entertainment Sports

Manila Bulletin > Technews > Fortinet survey reveals Philippines' cybersecurity under siege

Technews

Fortinet survey reveals Philippines' cybersecurity under siege

By MB Technews

Published Jun 2, 2025 05:46 am

Fortinet: 78% of PH firms hit by AI cyberattacks | ANC

ANC 24/7

3.01M subscribers

Join Subscribe

Text-Only Homepage

BusinessMirror

The Daily Scroll News Business Sports Opinion Life Features

Tech, Top News

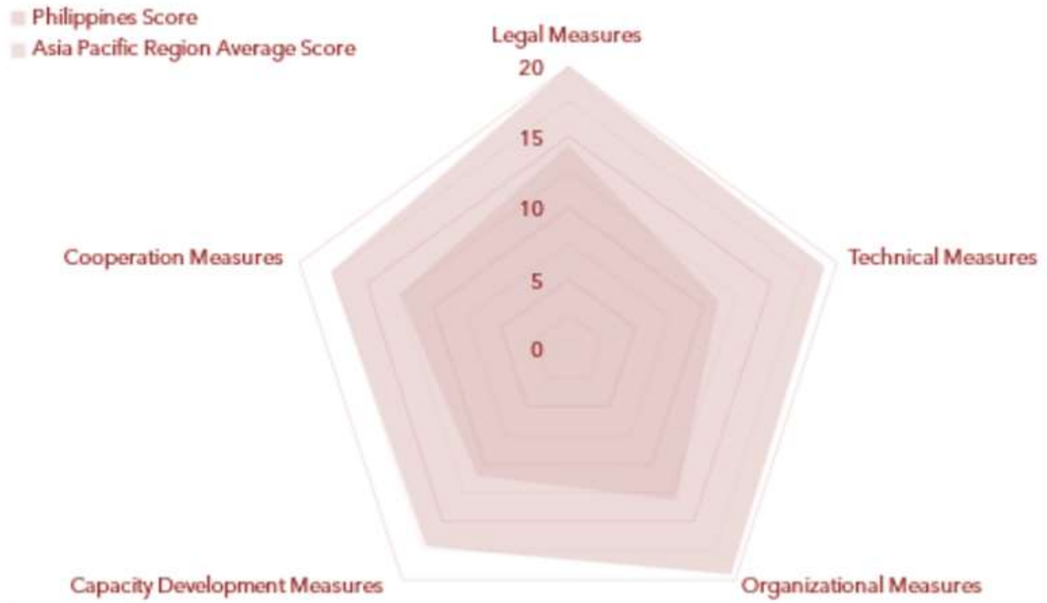
PHL among Top 20 most targeted by cyber threats in 2025, Microsoft report reveals

BusinessMirror · October 21, 2025 · 2 minute read

Global Cybersecurity Index

Philippines

GCI 5th Edition Country Profile



Country Score
out of maximum 20 points per pillar

Legal Measures	Technical Measures	Organization Measures	Capacity Development	Cooperation Measures
20	19.11	19.51	17.17	17.7

*Countries are classified according to www.itu.int

Areas of Relative Strength
Legal Measures
Technical Measures
Organizational Measures

Areas of Potential Growth
Capacity Development Measures
Cooperation Measures

Tier Performance
T2: Advancing



Source: https://www.itu.int/en/ITU-D/Cybersecurity/Documents/GCIv5/2401416_1b_Global-Cybersecurity-Index-E.pdf

Global Cybersecurity Index

	Country	Legal Measures	Technical Measures	Organization Measures	Capacity Devt	Cooperation Measures	TOTAL	2024 GCI
	• Indonesia	20	20	20	20	20	100%	T1Role-modelling
	• Malaysia	20	20	18.82	20	20	98.82	T1Role-modelling
	**• Philippines**	**20**	**19.11**	**19.51**	**17.17**	**17.7**	**93.49**	**T2Advancing**
	• Singapore	20	20	20	19.86	20	99.86	T1Role-modelling
	• Thailand	20	20	19.22	20	20	99.22	T1Role-modelling
	• Vietnam	20	20	20	19.74	20	99.74	T1Role-modelling

Source:
https://cms-cdn.e.gov.ph/DICT/pdf/NCSP-2023-2028-FINAL-DICT.pdf
https://www.itu.int/en/ITU-D/Cybersecurity/Documents/GCIv5/2401416_1b_Global-Cybersecurity-Index-E.pdf

What’s Being Done?

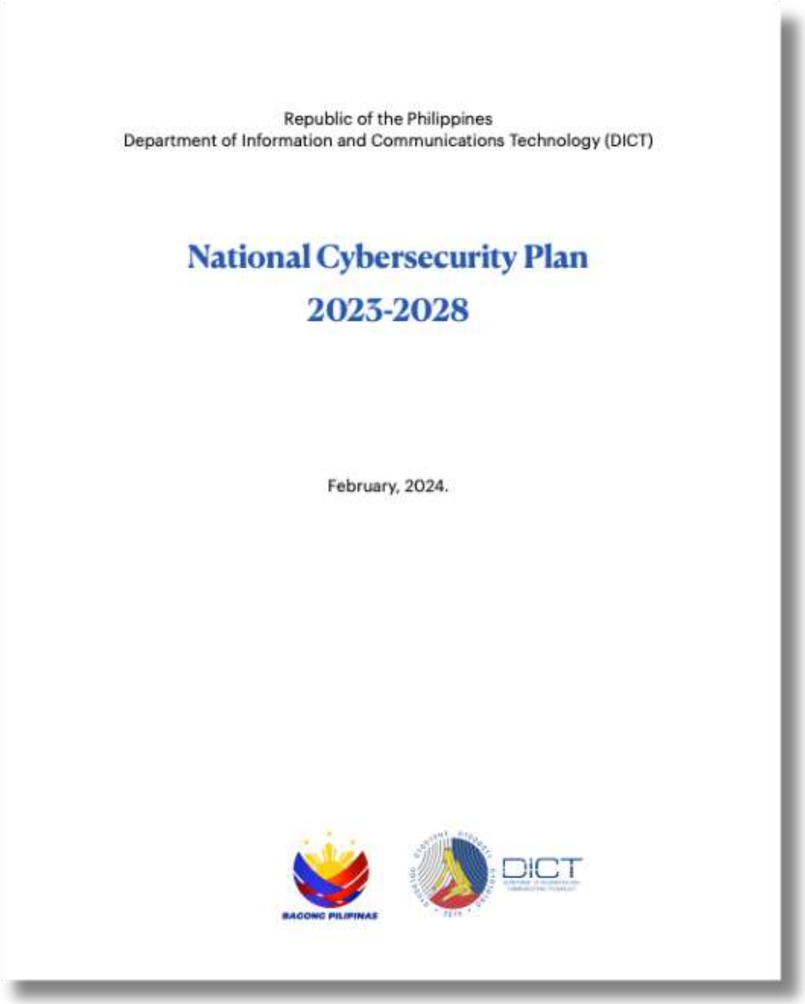
DICT Accelerates Push to Elevate Philippines’ Global Cybersecurity Index Ranking

08/29/2025



Source: https://dict.gov.ph/news-and-updates/22909

What’s Being Done?

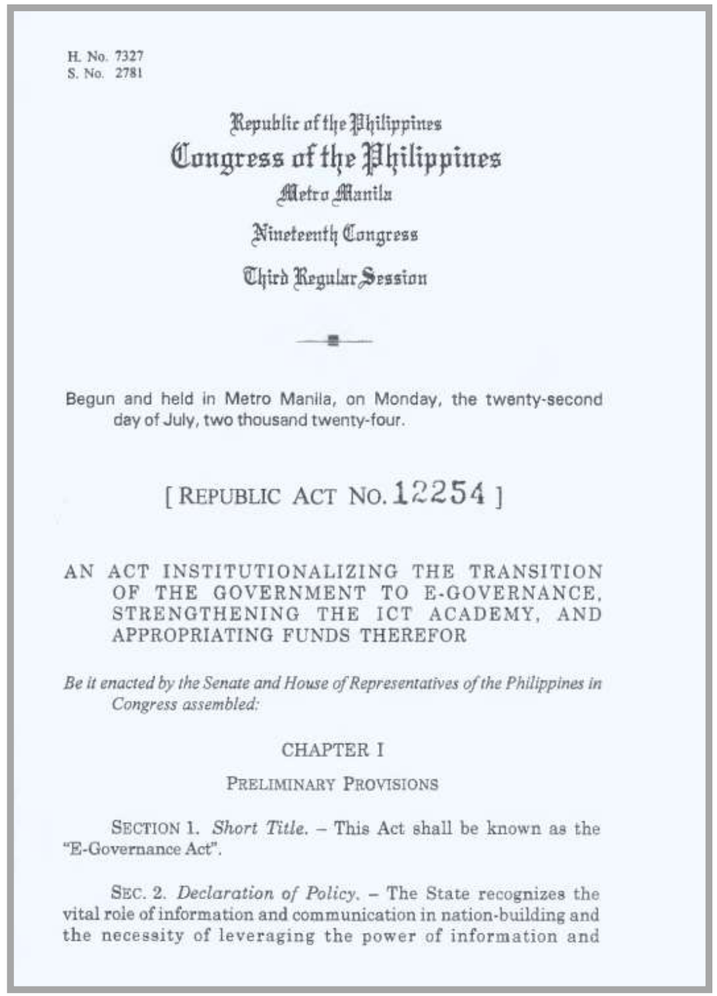


National Cybersecurity Plan 2023-2028

- Covers all cyberspace assets accessible in the Philippines *regardless of physical location*
- Confidentiality, Integrity, Availability, *Non-Repudiation, Authenticity, Privacy, and Safety* (CIANA-PS)
- Risk-based, standards-based vs One-size-fits-all
- Strengthened policy and governance
- Improved Cybersecurity Incident Response

Source: https://cms-cdn.e.gov.ph/DICT/pdf/NCSP-2023-2028-FINAL-DICT.pdf

What’s Being Done?



H. No. 7327
S. No. 2781

Republic of the Philippines
Congress of the Philippines
Metro Manila
Nineteenth Congress
Third Regular Session

Begun and held in Metro Manila, on Monday, the twenty-second day of July, two thousand twenty-four.

[REPUBLIC ACT NO. 12254]

AN ACT INSTITUTIONALIZING THE TRANSITION OF THE GOVERNMENT TO E-GOVERNANCE, STRENGTHENING THE ICT ACADEMY, AND APPROPRIATING FUNDS THEREFOR

Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

CHAPTER I

PRELIMINARY PROVISIONS

SECTION 1. *Short Title.* – This Act shall be known as the "E-Governance Act".

SEC. 2. *Declaration of Policy.* – The State recognizes the vital role of information and communication in nation-building and the necessity of leveraging the power of information and

Republic Act 12254 : E-Governance Act (Signed Sept. 05, 2025)

- Development of competency and qualification standards for ICT positions including cybersecurity
- Protection of Government Critical Information Infrastructure
- Creation of Computer Emergency Response Teams
- Compliance by all government agencies

Source: https://legacy.senate.gov.ph/republic_acts/ra%2012254.pdf

What’s Being Done?

The UN Convention Against Cybercrime (Signed Oct. 25, 2025)

PH Joins Global Frontline Against Cybercrime, DICT Secretary Signs Landmark UN Convention in Ha Noi, Viet Nam

10/25/2025



Source: https://dict.gov.ph/news-and-updates/23776

Key Challenges



- Limited infrastructure
- Funding
- Policy implementation gaps
- Awareness
- Talent

Source: https://dict.gov.ph/news-and-updates/23776

AI in Cybersecurity

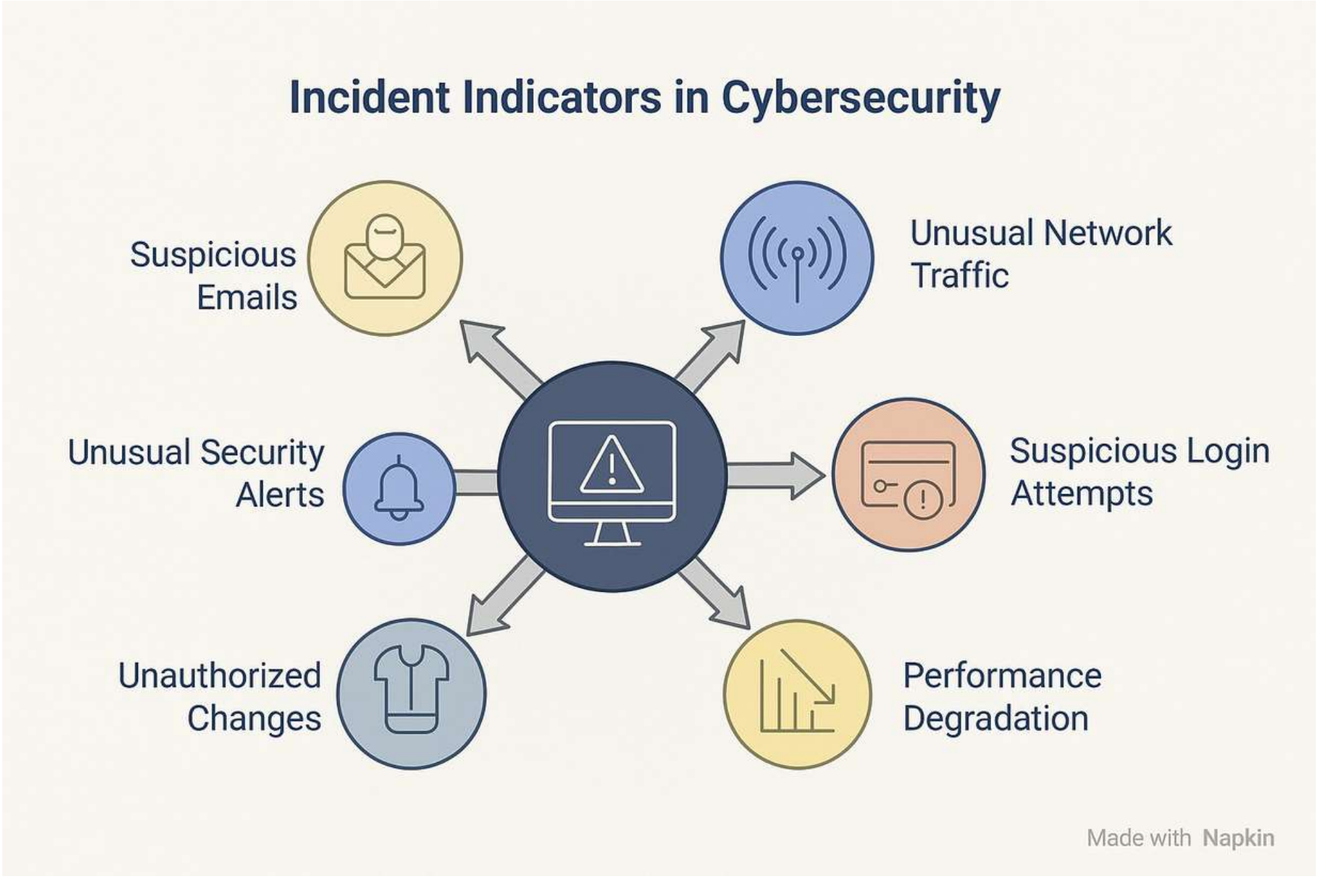
The Role of AI in Enhancing Cybersecurity



AI in Cybersecurity

Threat Detection and Prevention

- Anomaly Detection
- Malware Detection
- Phishing Detection



AI in Cybersecurity

Security Automation

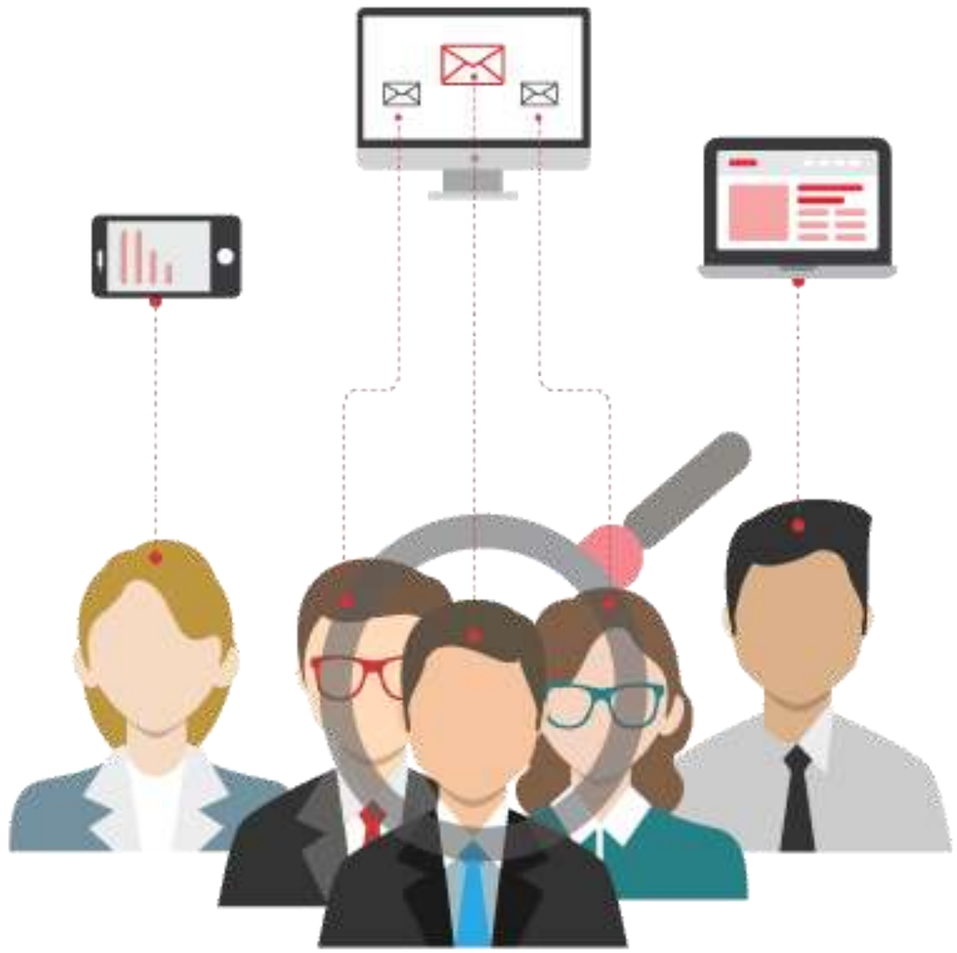
- Automated Incident Response
- Security Orchestration



AI in Cybersecurity

Behavioral Analytics

- User and Entity Behavior Analytics
- Fraud Detection



AI in the Finance Sector





A Study by Bangko Sentral ng Pilipinas

Source: https:https://www.bsp.gov.ph/Media_And_Research/Special%20Publications/BSP_Thematic_Review_on_the_Use_of_AI_and_ML_in_Financial_Services.pdf

AI in Cybersecurity

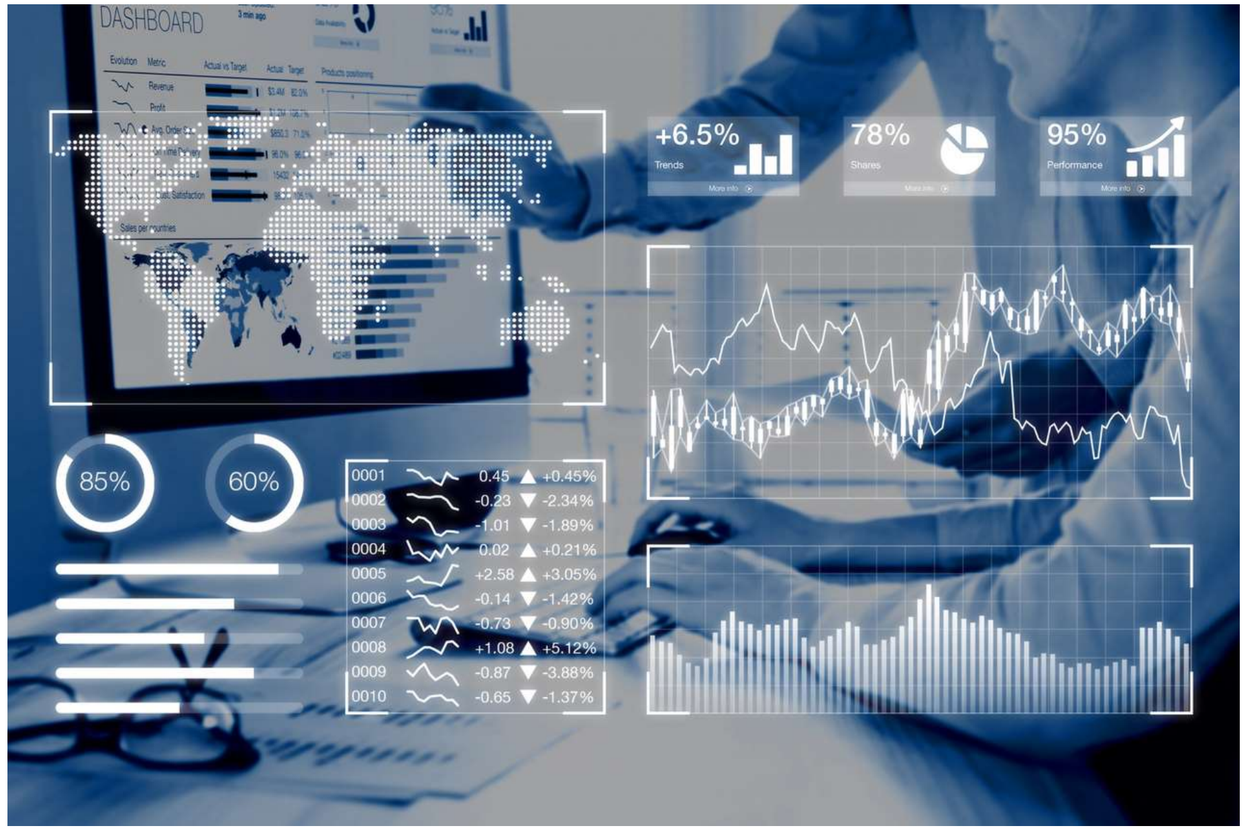
Network Security

- Intrusion Detection Systems
- Traffic Analysis



AI in Cybersecurity

- Security Analytics and Forecasting
- Vulnerability Management

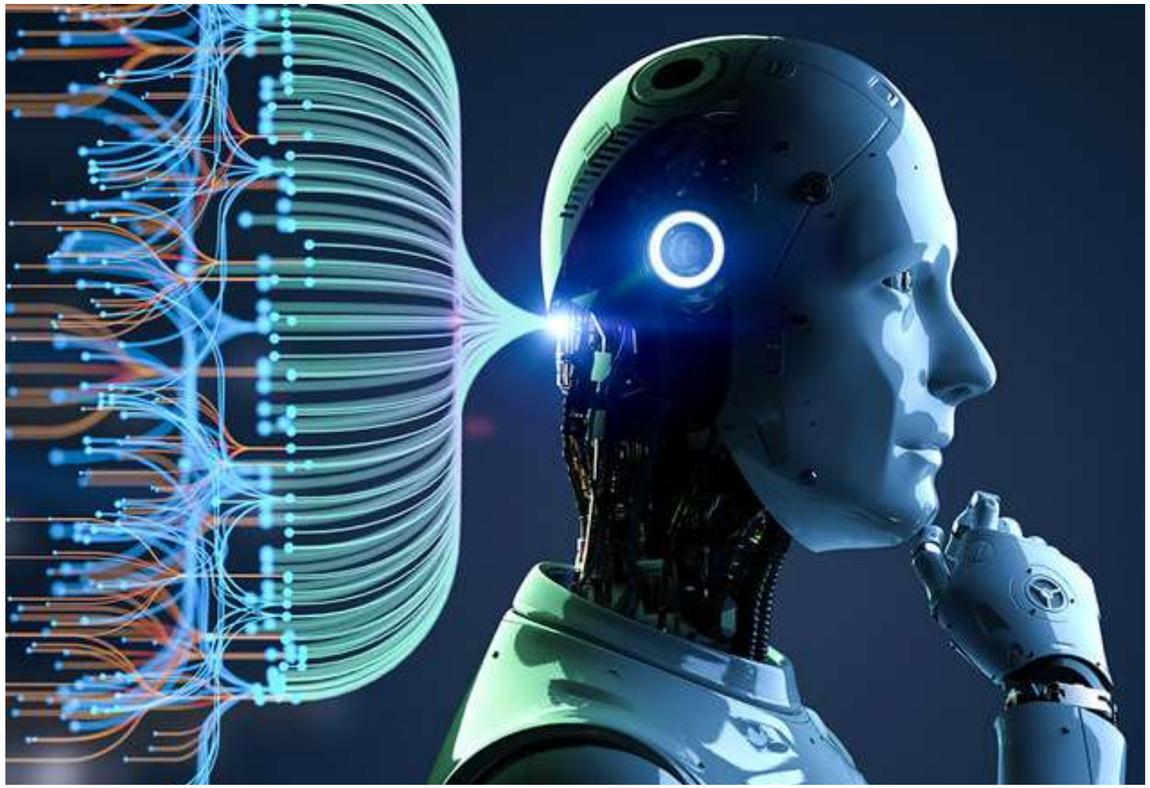


AI as a Strategic Ally in Cybersecurity



- Trusted partner in Cybersecurity Operations
  - Improved responsiveness
  - Reduced cost
- Enabler of proactive and resilient strategies

AI Ethical and Regulatory Considerations



- Transparency and explainability
- Privacy and data protection
- Bias and Fairness
- Accountability and Human Oversight
- Security of AI Systems

AI in Cybersecurity

AI-Driven Threats



AI-Driven Threats

- AI-Generated Phishing and Social Engineering
- Automated Malware and Exploit Development



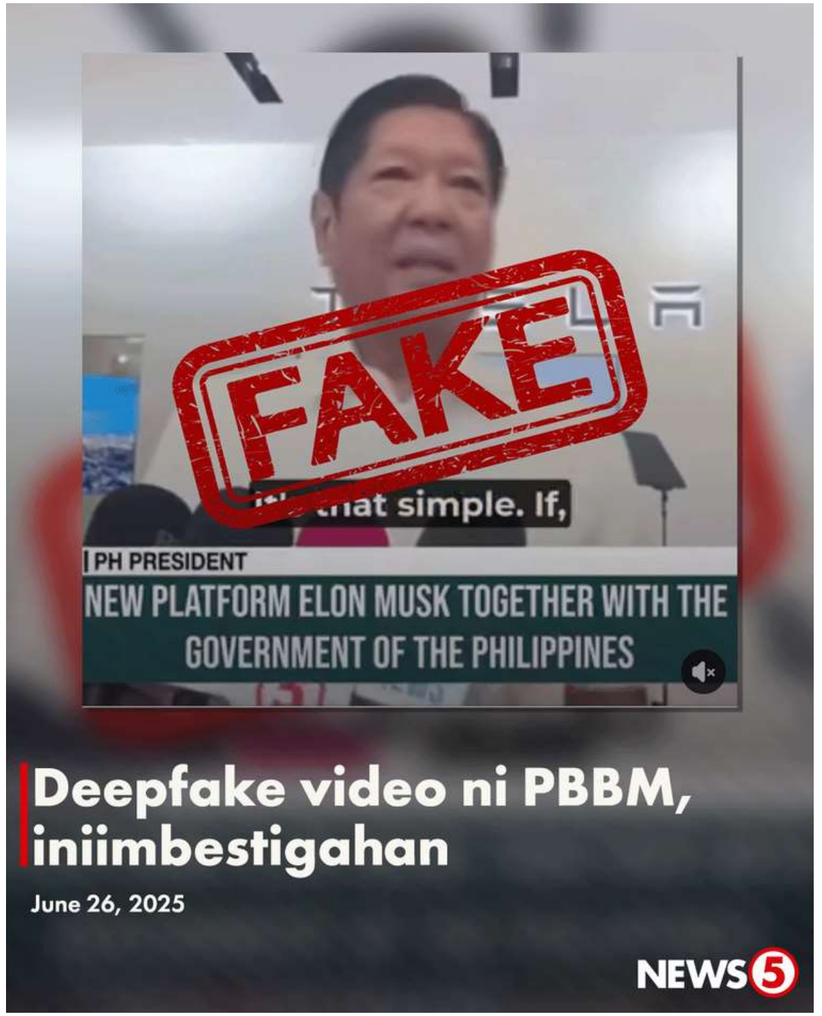
AI-Driven Threats

- Data Poisoning
- Model Inversion and Information Leakage
- Prompt Injection and Manipulation

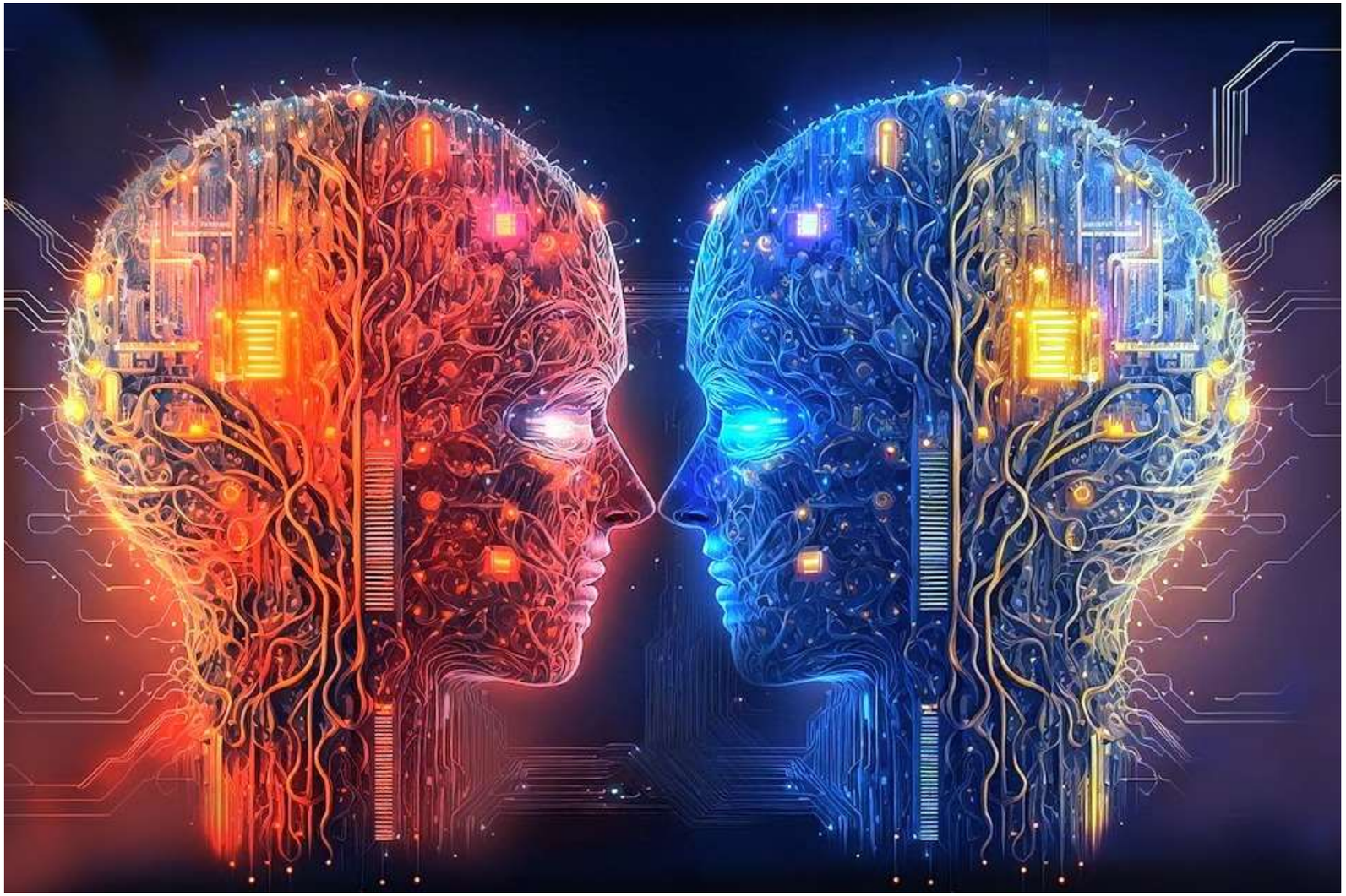


AI-Driven Threats

- Deepfakes and Synthetic Media



AI Duality



AI in Cybersecurity

Future Outlook



Future Outlook

Faster AI adoption velocity

- 21% of Philippine enterprises in 2024 (50% growth)
- Start-ups outpace large enterprises



Future Outlook

Evolving Threat Landscape

- Increased AI-powered cyberattacks
- More Zero-day



Future Outlook

AI as Core Component of Cyber Defense

- Government
- Corporate
- SMEs
- Grassroots



Future Outlook

Public-Private Partnership

- Collaborative and unified strategy
  - Intra-country
    - multisectoral
  - Inter-country



Future Outlook

Learning is paramount!

- Cybersecurity skills
  - AI Security Engineers
  - Security Data Scientists
  - Threat Intelligence Analysts
  - AI Incident Response Specialists

- Grassroots awareness



Q&A Session



Contact

Email: vangie@ubqty.net

Website:

www.ubqty.net
www.whitehallconsulting.com

For any questions or comments you can contact us below:

- support@pecb.com