Hacktales

CYBERSECURITY FOUNDATION PROGRAM

Authors:
Chikodili Udeh & Olajide Adebayo

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01

Vulnerability, Threats & Attacks

Objectives

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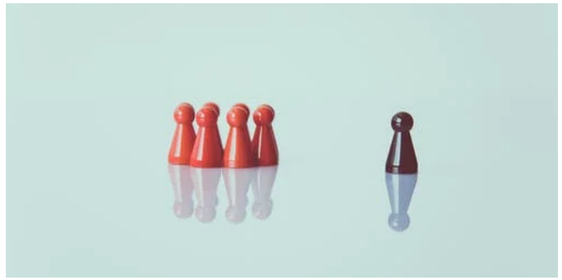
01

At the end of this section, students will understand how the threat landscape has changed post-pandemic.



02

Students will learn to differentiate vulnerabilities, threats and attacks.

03

Students will be able to analyze the cyber threat vectors present within an organization.

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Vulnerability, Threat & Attack

In cybersecurity, a vulnerability is a weakness that can be exploited by cybercriminals to gain unauthorized access to a computer system.

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Categories of Vulnerabilities

1. Personnel
2. Organizational
3. Physical Site/Perimeter
4. Hardware
5. Software

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Vulnerability, Threat & Attack

A cyber threat is a possible security violation that might exploit the vulnerability of a system or asset.

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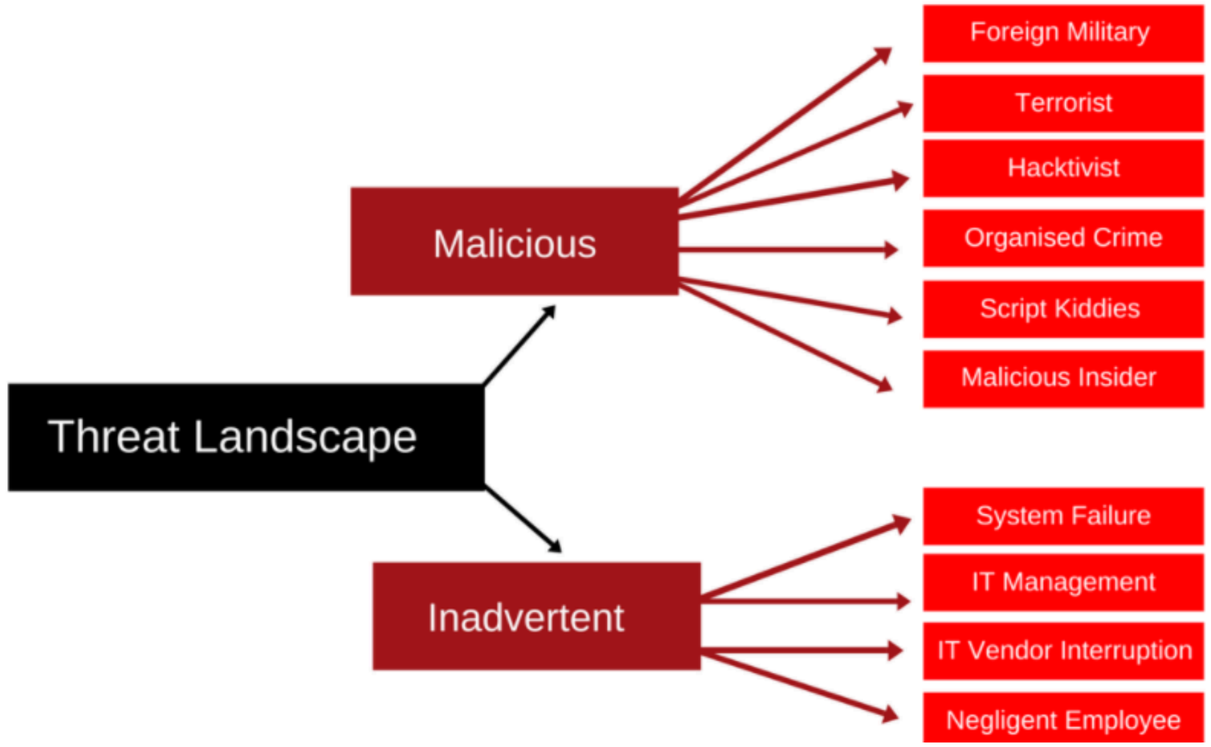

Threat Landscape

The threat landscape is the entirety of potential and identified cyber threats affecting people, processes, and technology.

Mailicious Threat Sources

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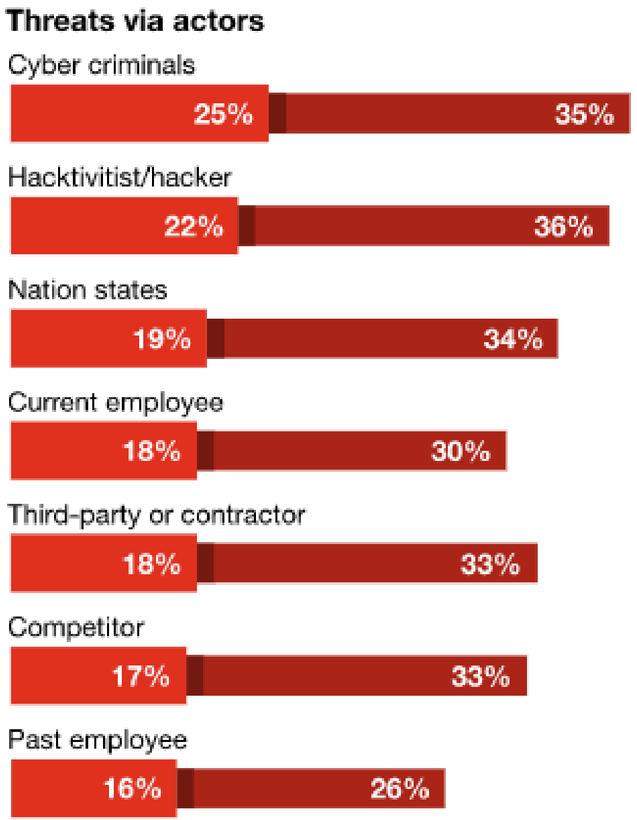
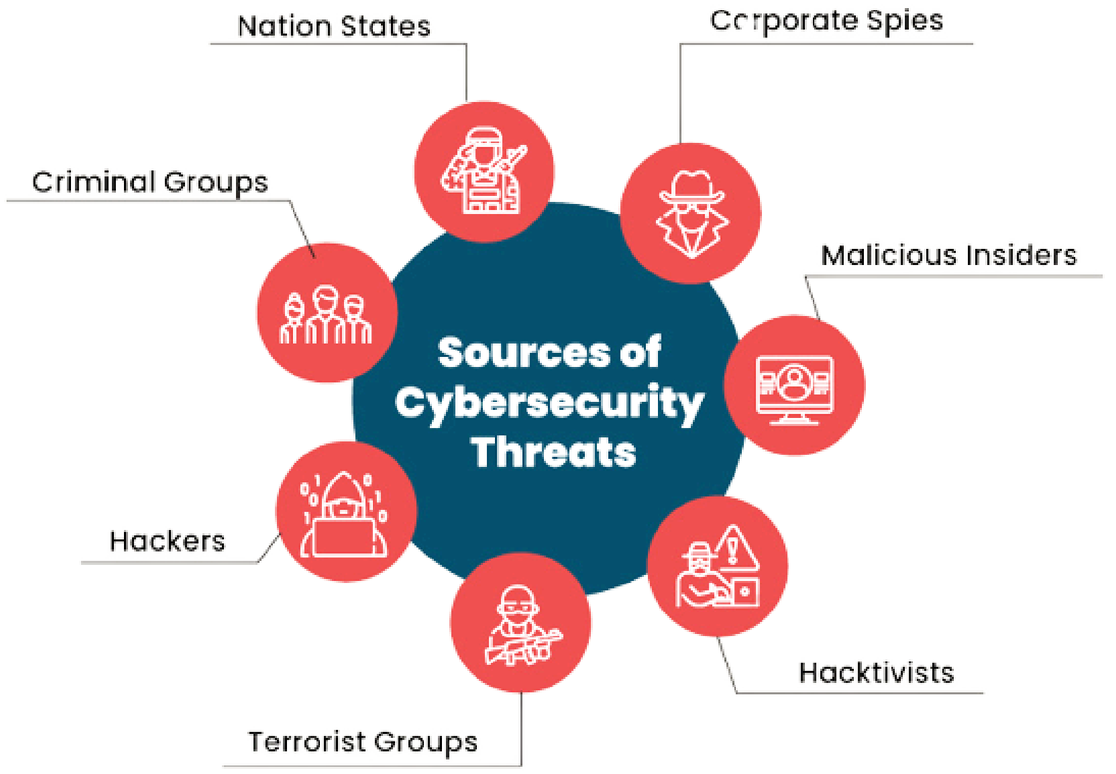
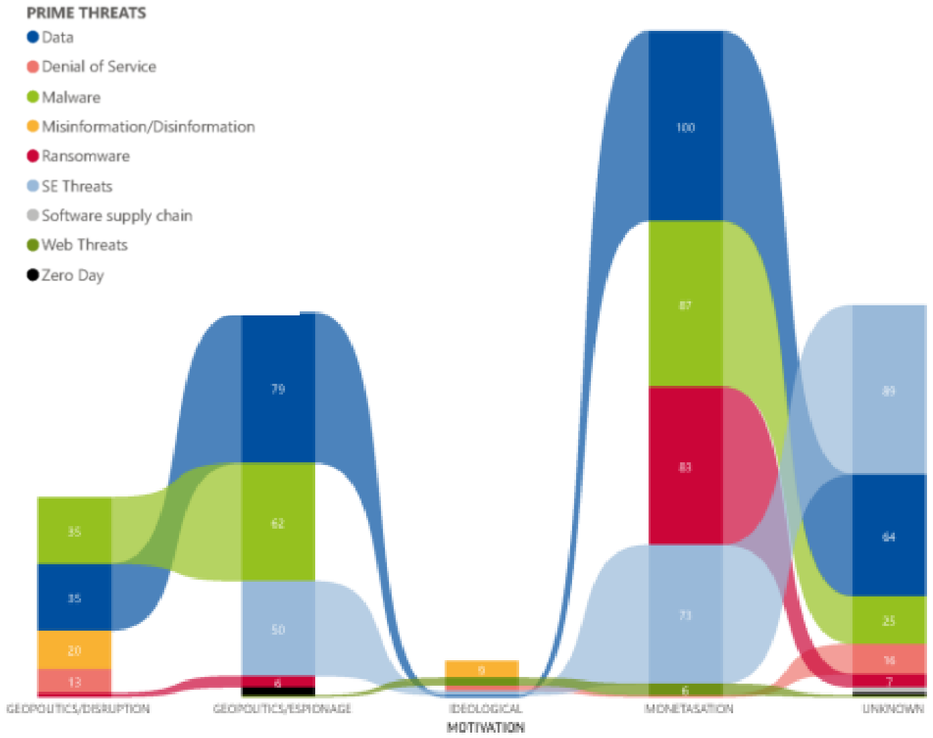
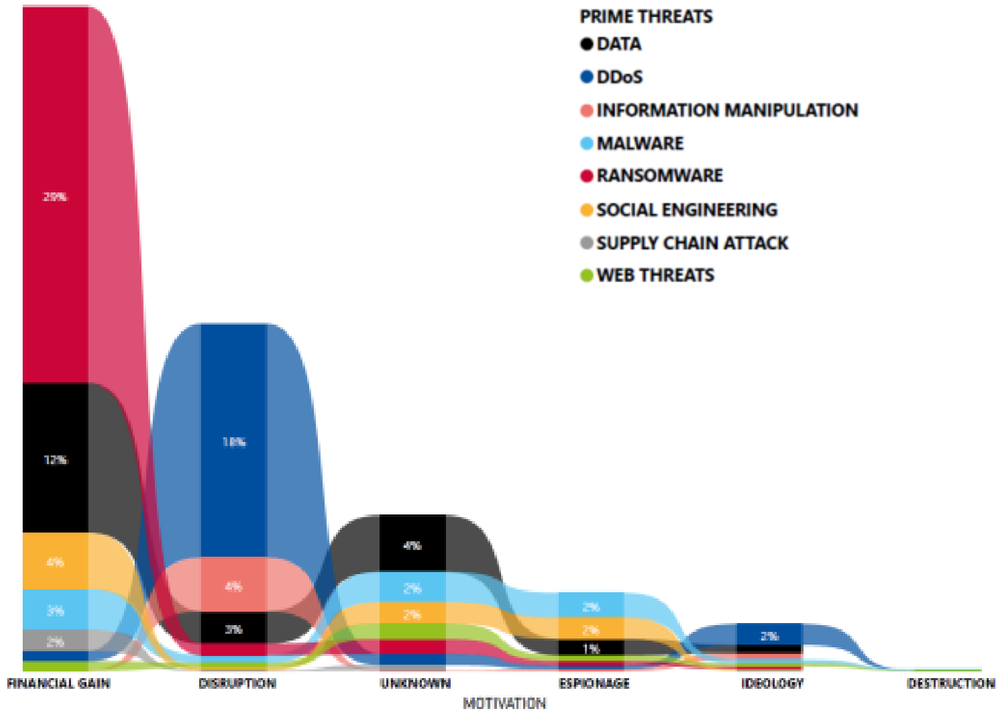




The threat landscape changes both over time and as a result of events with significant impact.





2022 vs. 2023

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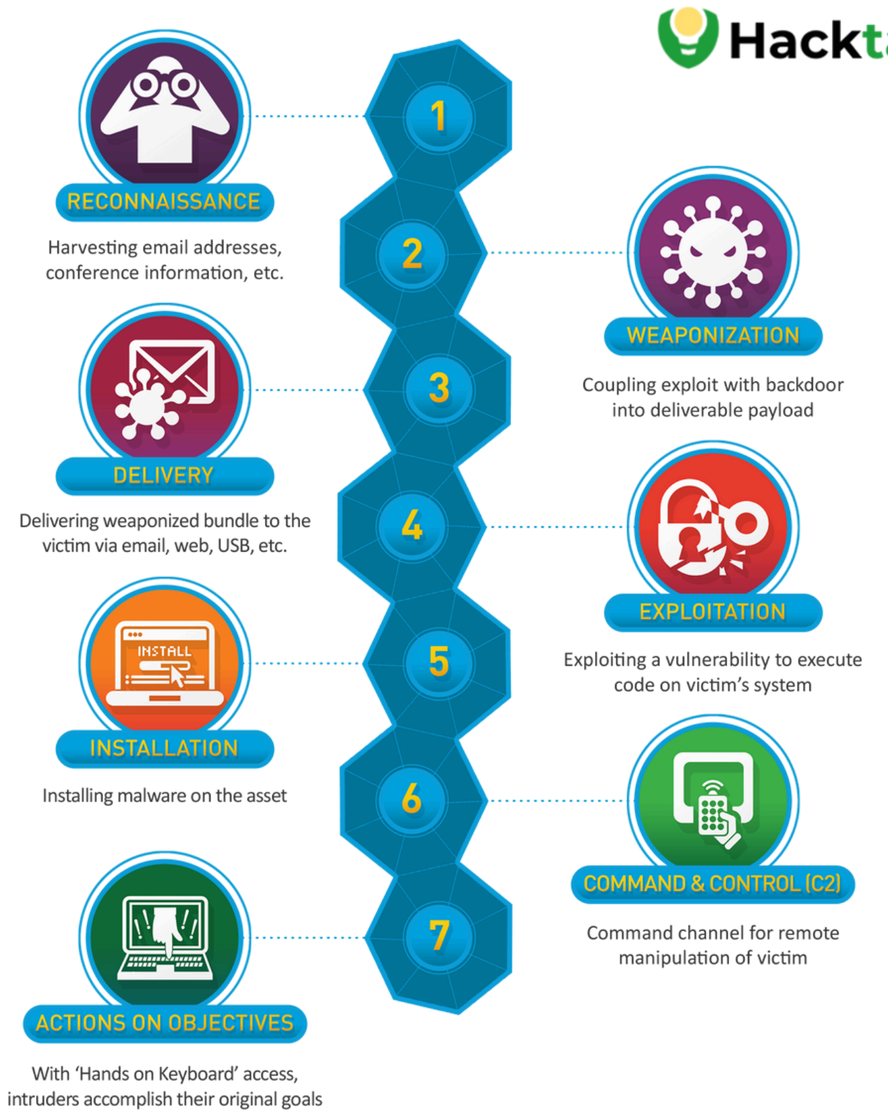
Vulnerability, Threat & Attack

A cyber attack is a deliberate unauthorized compromise of confidentiality, integrity or availability of an organization‘s IT systems or assets.

Also called the **cyber attack lifecycle**, refers to the events leading up to a cyberattack.



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Got Questions?

02

Open-Source Intelligence (OSINT)

Objectives

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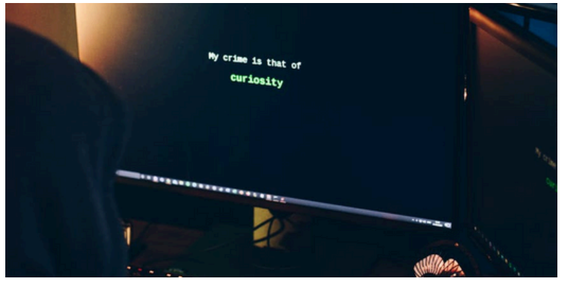
01

At the end of this section, students will understand the impact of open-source intelligence.

02

Students will understand how the dark web works.



03

Students will analyze the OSINT framework and its processes.

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OSINT 101

The term “open-source” refers specifically to information that is available for public consumption.

If any specialist skills, tools, or techniques are required to access a piece of information, it can’t reasonably be considered open source.

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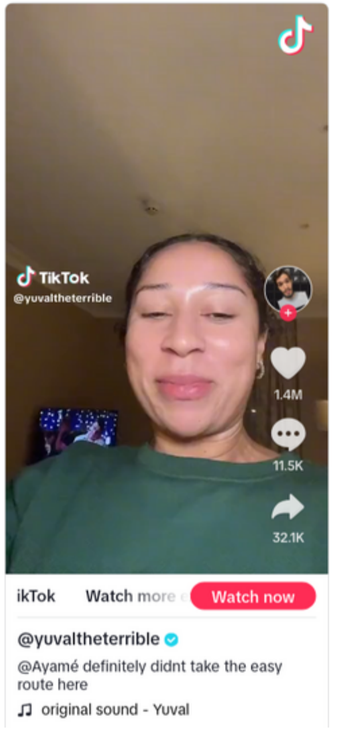
OSINT 101



Module 2: Threats, Vulnerabilities and Attacks
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Date:
May 3, 2025

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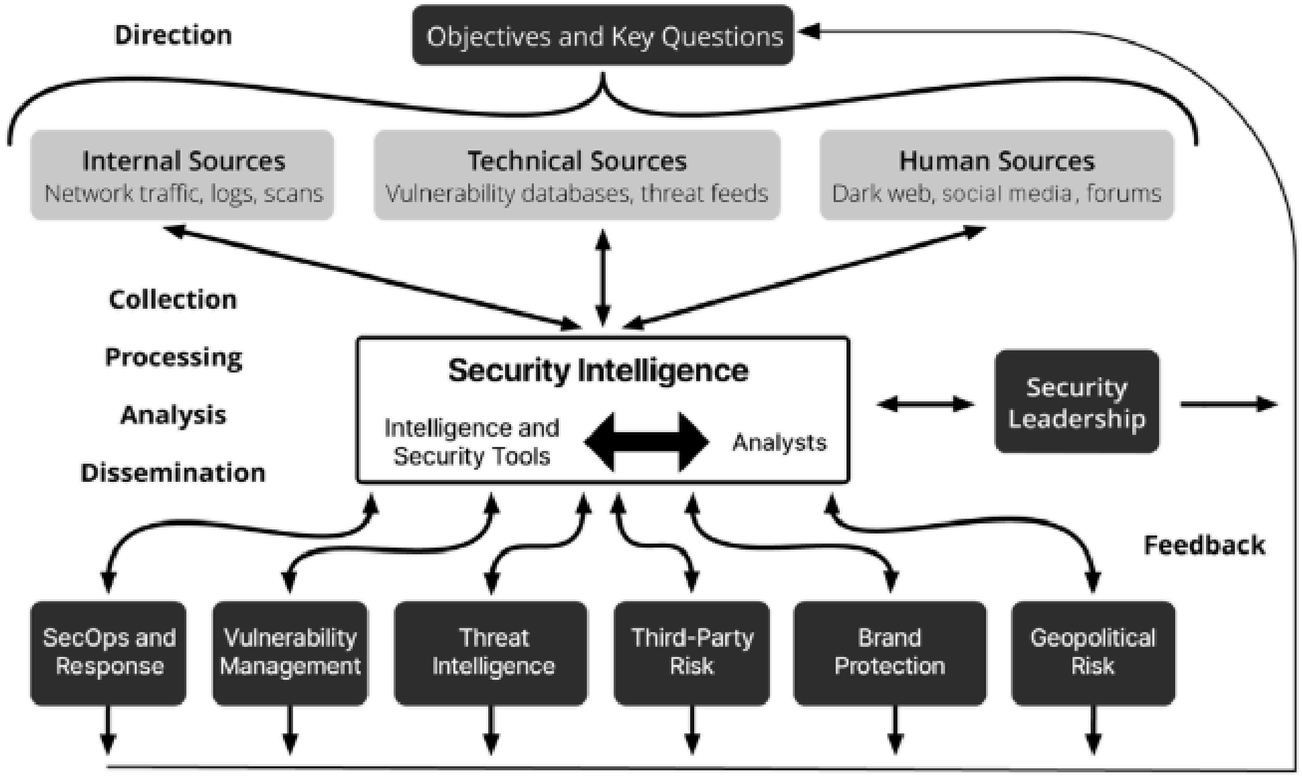
Security Intelligence



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Web Anatomy

Sites that can be found using search engines like Google and Yahoo — are just the tip of the iceberg.

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The Dark Web

The dark web is the hidden collective of internet sites only accessible by a specialized web browser.

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OSINT Framework Workshop

www.osintframework.com

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OSINT Pathways

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1. Digital Forensics Analyst
2. Security Operations Analyst (Incident Response)
3. Threat Intelligence Analyst (Threat Researcher)
4. Ethical Hacker (Penetration Tester)
5. Malware Reverse Engineer
6. Vulnerability Assessment Analyst (Threat Management)

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Got Questions?