

## DID YOU KNOW (An Initiative by) Scholastic Seed Inc.

Did You Know (DYN): DYN aims to achieve and fulfill the goals in readers' mind. The purpose is very clear and understandable that it showcases new and improved content, illustrating readers continuous improvement and expansion of cyber thoughts. It also highlights the variety of information on cyber and thereby provide an insight into the range of material that magazine covers. it includes the facts about a range of topics which may not essentially recognized in the main article disclosure.

### What is cyber space?



It is an electronic world created by interconnected networks of information technology and the information on those networks.

### What is cyber security?



Cyber security or information technology security are the techniques of protecting computers, networks, programs and data from unauthorized access or attacks that are aimed for exploitation.

### What is National Cyber Security Policy



The policy provides the vision and strategic direction to protect the national cyberspace. The major objectives of the policy are:

- To create secure cyber-ecosystem and enable adequate trust and confidence in electronic transactions and also guiding stakeholder's actions for protection of cyber space.

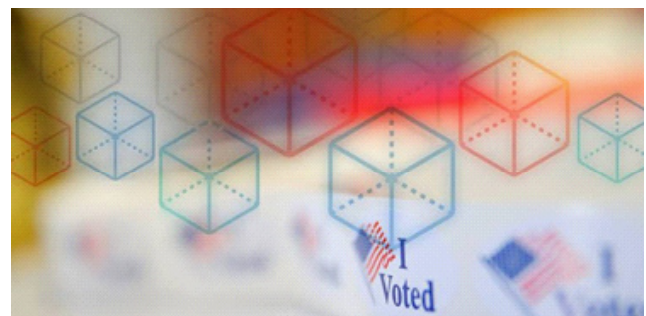
- To create an assurance framework for design of security policies and enable actions for compliance of global standards.
- To strengthen regulatory framework for ensuring secure cyber ecosystem.
- To develop suitable indigenous technologies in ICT sector.
- To increase the visibility of integrity of ICT product by establishing infrastructure for testing and validation of security of such product

### What is Draft National Encryption Policy



It aims to enable information security environment and secure transactions in Cyber Space for individuals, businesses, Government including nationally critical information systems and networks. To ensure secure transactions in Cyber Space for individuals, businesses and Government, a **National Encryption Policy** is required. ... A High Level Expert Committee's recommendations on **Encryption Policy** were recently put up on its website by DeitY for public comments

### What is Blockchain good for?



Blockchains are a fascinating new technology. They enable fully decentralized databases, resistant to censorship and potentially allowing for system adoption in critical applications like money and identity.

### What is security design



**Security engineering** is a specialized field of [engineering](#) that focuses on the [security](#) aspects in the design of systems that need to be able to deal robustly with possible sources of disruption, ranging from natural disasters to malicious acts. It is similar to other systems engineering activities in that its primary motivation is to support the delivery of engineering solutions that satisfy pre-defined functional and user [requirements](#), but it has the added dimension of preventing misuse and malicious behavior

### Who has given the concept of cybernetics?

**Cybernetics: The Viable System Model**

- Beer's VSM implements a control & communication structure via hierarchies of homeostats (feedback loops) (1950)
- Defines 6 major systems ensure 'viability' of the system
  - Implementation S1
  - Monitoring S2
  - Audit S3\*
  - Control S3
  - Intelligence S4
  - Policy S5
- Offers an extensible, recursive, model-based architecture, devolving autonomy to sub-systems

In modern times, the **term** became widespread because Norbert Wiener wrote a book called "**Cybernetics**" in 1948. His sub-title was "control and communication in the animal and machine".

### What is cyborg technology?



A cybernetic organism or "**cyborg**" in IT is defined as an organism with both biological and **technological** components. ... However, in a technical sense, humans can be seen as **cyborgs** in various types of situations, including the use of artificial implants.

### What is Vulnerability exploitation



Like operating systems, even the database servers do have bugs resulting into serious vulnerabilities. Attackers can explore and exploit those either through the web layer, or by injecting a Trojan in the system dedicated for this purpose. Hackers are always looking for unpatched database system for this purpose.

### What is Web 3.0



**Web 3.0** is the third generation of **internet** services for websites and applications that will focus on using a machine-based understanding of data to provide a data-driven and semantic **web**. The ultimate goal of **Web 3.0** is to create more intelligent, connected and open websites.

### What is Security Automation



### Why e-learning is important



E-learning methods and technology are important both for educating students and for the professional development of employees in the workforce.

In the mid-2000s, the American Society for Training and Development (ASTD) estimated that 75% of the U.S. workforce would need retraining within the coming five years in order to keep pace with industry needs and increasing global competition. Hewlett-Packard estimated that the half-life of a bachelor’s degree in engineering could be as short as 18 months.

### What is the purpose of Semantic Web?



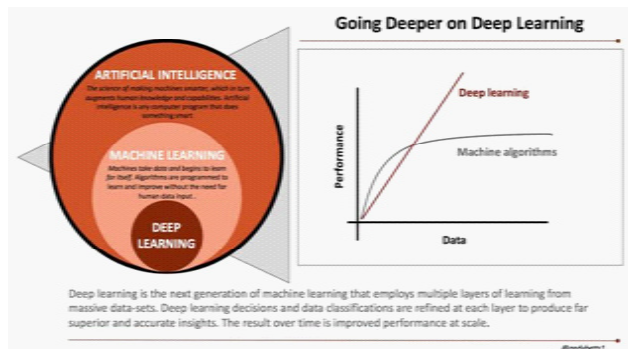
**Semantic web** is an attempt to enhance current **web** so that computers can process the information existing on WWW, understand and fix it, help humans to discover required knowledge. It is proposed to form a huge distributed knowledge based system to share data instead of documents.

### What is Deep learning?



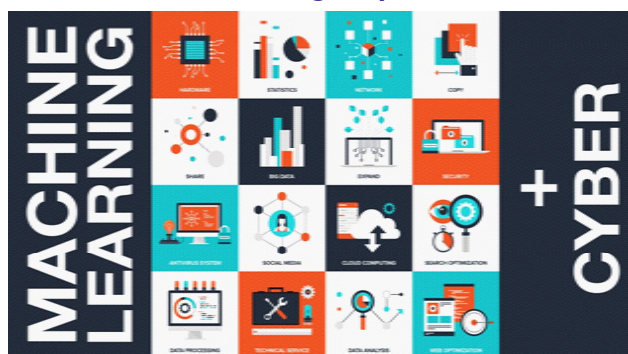
**Deep learning** is a subset of **machine learning** in artificial intelligence (AI) that has networks capable of **learning** unsupervised from data that is unstructured or unlabeled. Also known as **deep neural learning** or **deep neural network**.

### Where is Deep learning used?



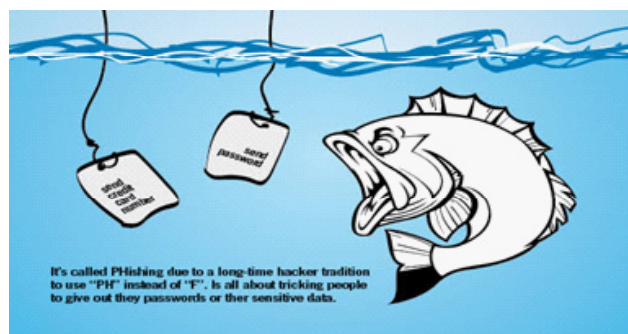
In addition, **deep learning is used** to detect pedestrians, which helps decrease accidents. Aerospace and Defense: **Deep learning is used** to identify objects from satellites that locate areas of interest, and identify safe or unsafe zones for troops.

### How Machine Learning helps in Defense



**Machine Learning** has become the first step of defence against **cyber** attacks. Alternatively, you can have a vulnerability scanning tool for web applications. One of its modules is testing files for unauthorized access. ... **AI** and **ML** Predict, Detect, Prevent, Respond and Monitor.

### What is phishing?



Phishing is a fake email masquerading as legitimate. Hackers create phishing emails through which they intend to steal your confidential information like passwords and bank account details. This kind of email appears to have come from a well-known person or organisation like your bank or company that you work for. These emails generally try to create an urgency or panic to trick users into giving out their personal details

**How to stay safe in a cyber era**



- Use a legitimate anti-virus software.
- Do not download any fake software as there are chances it may contain malware.
- Never click on fake antivirus pop-ups that are generated from websites.
- Always keep your operating system updated.
- Never download pirated apps/software as they always contain some kind of malware

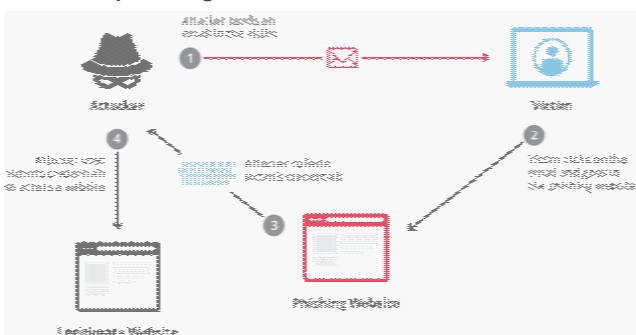
**Smishing**



**What is Smishing?**

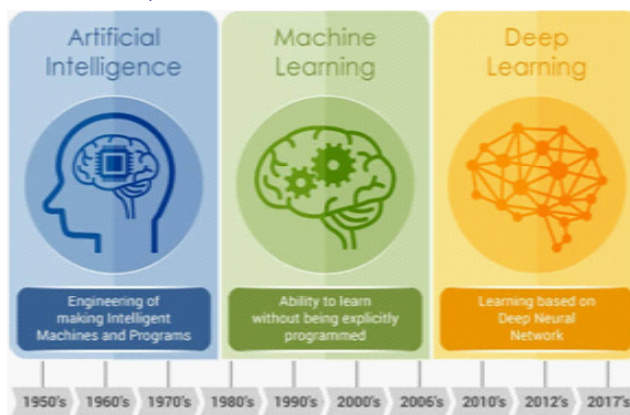
Smishing is a form of phishing in which someone tries to trick you into giving them your private information via a phone call or SMS message. Smishing is becoming an emerging and growing threat in the world of online security.

**What is a phishing attack?**



“Phishing” refers to an attempt to steal sensitive information, typically in the form of usernames, passwords, credit card numbers, bank account information or other important data in order to utilize or sell the stolen information. By masquerading as a reputable source with an enticing request, an attacker lures in the victim in order to trick them, similarly to how a fisherman uses bait to catch a fish.

**What is AI, ML & DI**



**What is MDR?**

Managed Detection and Response (MDR) is an advanced managed security service that provides threat intelligence, threat hunting, security monitoring, incident analysis, and incident response. This is unlike traditional MSSPs who only provide alerts from security monitoring. Using advanced security analytics on endpoints, user behavior, application, and network; MDR provides deeper detection compared to traditional MSSPs, who mostly rely on rules and signature. For faster response, MDR also uses AI and machine learning to investigate, auto contain threats, and orchestrate response.



Managed Detection and Re Service (MDR) is a complete cyber security service that leverages Artificial Intelligence (AI) techniques and machine learning to provide high speed cyber defense.