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UNDERSTANDING AI IN CYBER SECURITY

NEARLY TWO THIRDS THINK AI WILL HELP IDENTIFY CRITICAL THREATS

69% BELIEVE AI WILL BE NECESSARY TO RESPOND TO CYBERATTACKS

TWO THIRDS PLAN TO DEPLOY AI BY 2020

Organisations are counting on AI to help overwhelmed security analysts, improve accuracy, respond faster... And reduce detection and response costs

WHERE WE ARE NOW
BEWARE THE OVERINFLATED AI CLAIM

40% **OF 2,830 STARTUPS IN EUROPE CLASSIFIED AS 'AI COMPANIES' DO NOT USE AI IN ANY MATERIAL WAY.**

(Source: Forbes, MMC Ventures "The State of AI: Divergence 2019" Report)

WHY IS IT SO MISLEADING?

AI is a broad term that encompasses several types of technology. A company may be using AI in some way e.g. a chatbot that is not material to its core offering. There are many different forms AI can take and often in cyber security this is more than likely Machine Learning.

> *The theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages*
>
> Oxford English Dictionary

SUPERVISED

The algorithm 'learns' to classify based on a labelled dataset.

This is where you have a huge data set of examples or samples that you've labelled as good or bad in simplistic terms and you've used that data set to train the algorithm to teach the algorithm.

UNSUPERVISED

The algorithm attempts to make sense of an unlabeled dataset by extracting features and patterns (e.g. k-means clustering).

REINFORCEMENT LEARNING

Self-teaching systems that learn by trial and error using reward signals for feedback, reinforcing actions that deliver good results.

DEEP LEARNING

Data is transformed through multiple layers that progressively extract higher level features from input data.

ARTIFICIAL INTELLIGENCE

MACHINE LEARNING

SUPERVISED

UNSUPERVISED

REINFORCEMENT LEARNING

DEEP LEARNING

BAYESIAN STATISTICS

EVOLUTIONARY ALGORITHMS

RULE-BASED ENGINES

AI COMING OF AGE FOR CYBER SECURITY

Beware overblown claims about how AI can effect cyber security. As AI and ML technologies develop and mature it's application within cyber security will advance. Below are some key areas where AI and ML can already be applied.

- IMAGE CONTENT ANALYSIS
- USER AND ENTITY BEHAVIOUR ANALYSIS
- ADAPT TO CHANGING THREATS
- PROACTIVE RESPONSE

ASE **AUTONOMOUS SECURITY ENGINE**

By combining email security, web security, CASB, and MFA into a single platform, Censornet overcomes the point product paradox and offers end-to-end visibility of – and protection from - fast-moving multi-channel threats that are so common today.

DISCOVER MORE AT CENSORNET.COM