AI is disrupting every aspect of business. We explore how it will help, and hurt, our cybersecurity culture

This is a theory building project.

In scope for this project:
- AI applications that change cybersecurity culture

We are not exploring:
- Key challenges AI introduces to the organization as a whole
- How managers use AI for business applications in general
- Threat actor use of AI to disrupt business, outside of human risk management and culture

About half of organizations have started testing ways to use AI, mostly around phishing exercises

Almost 60% of the respondents said they believe there are both (positive and negative) impact of AI on organization’s cybersecurity culture. 33% of the respondents believe there was only positive impact using AI on organization’s cybersecurity culture. None of the respondents mentioned that AI had only negative impact on organizations cybersecurity culture.

Around 40% of the respondents mentioned that they have taken steps to use AI to improve cybersecurity. The respondents mentioned using AI for phishing simulations or evaluating AI use case POCs.

Around 48% of respondents mentioned ‘No’ but they explained that either they are unaware of using AI for cybersecurity culture or they are still discovering it.

How AI is changing our cybersecurity culture

- Personalized just in time training
- User Behavior profiling
- “Proactive angel on your shoulder”
- Augmented Behavior (Virtual Assistants)
- Collect and digest large amount of employee behaviors
- Identify anomalies in behaviors
- Reduce errors in human actions
- Earlier identification of malware
- Better, adaptable simulations

Suggested AI uses to reduce human risk

- Training and learning by creating content and summarization
- Assessing and providing performance feedback by personalizing training tools and interjecting automated reinforcement.
- Monitoring, identifying, assessing, quantifying and encouraging secure behaviours
- Rewarding desired secure behaviours in the moment
- Correcting problematic behaviours with just-in-time training, highlighting corrective actions, and reinforcing desired results

Participate in our project: Take our survey and share your thoughts

Please provide your thoughts on the impact of AI on cybersecurity culture. Scan this QR code and take our 10 min survey. If you provide your name & email, we will send you a summary of the results. Questions? contact kerip@mit.edu.