

What cybersecurity awareness has in common with Swiss Ice Hockey

A recent study by HSLU shows that AI phishing simulations significantly improve employees' risk-awareness behavior. Effective awareness has two streams: training shapes attitudes, while practical exercises shape behavior. Both are necessary – just as in ice hockey.

What do cybersecurity awareness and Swiss ice hockey have in common? More than you might think at first glance – because in both cases, the right combination of training and practical experience makes all the difference.

Ice hockey as an analogy

Switzerland has long boasted outstanding coaches. However, Swiss ice hockey's rise to the top of the world after 2004 was not solely their achievement. Coaches imparted expertise and worked on the players' attitudes. The decisive leap in quality, however, came from the NHL stars who played virtually the entire season in Switzerland during the 2004/05 lockout. Their presence led to lasting improvements in the behavior of local players, and the standard of play rose permanently.

Parallels to Cybersecurity Awareness

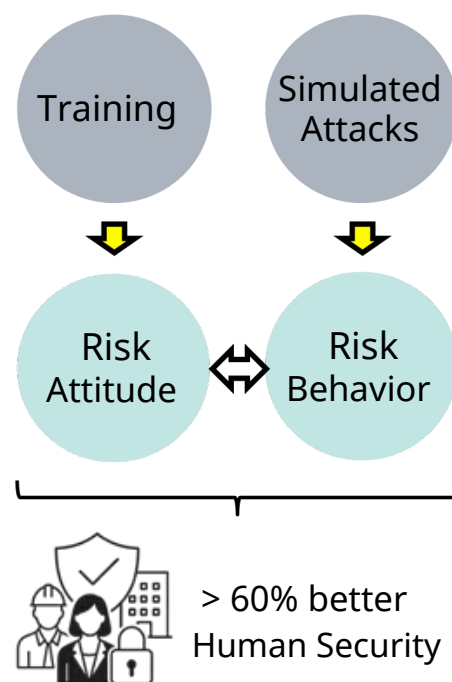
A similar picture is shown by the HSLU study "Leveraging AI-enabled spearphishing to enhance cybersecurity" [1]. The study examined the effectiveness of AI/OSINT-based spearphishing simulations compared to traditional awareness measures, conventional phishing exercises, and normative training. Background: Phishing will remain the largest gateway for cyberattacks in 2025, while criminals have long since routinely used AI. [2, 3.]

Key results

- Personalized AI phishing exercises are the most effective for behavior and also the most cost-effective.
- According to the study, AI/OSINT simulations improve risk behavior by 60 percent compared to traditional phishing exercises.
- Normative training primarily influences perception and sense of responsibility – in other words, attitude.
- A combination of both approaches (behavior & attitude) is necessary to achieve sustainable awareness.
- Time factor: One-time campaigns lose their effectiveness after just five months. If you only run two campaigns per year, you have to start from scratch each time, missing out on the continuous learning effect.

Sustainable effect like in sports

The comparison with Swiss ice hockey makes it tangible: Coaches strengthened the mindset, and NHL pros improved their behavior. The result: In the 20 years before 2004, Switzerland only reached the top five at World Championships twice. In the 20 years since, they achieved this eight times, including four silver medals.



The HSLU study proves that sustainable awareness can only be achieved through a combination of training and simulated attacks.

Conclusion

The HSLU study clearly demonstrates that the same principle applies to companies. Only the ongoing repetition and combination of normative training (attitude/mindset) and simulation (behavior) create a sustainable safety culture. Those who conduct awareness campaigns regularly and in combination can achieve similarly impressive progress as Swiss ice hockey after 2004.

1<https://www.hslu.ch/en/lucerne-university-of-applied-sciences-and-arts/research/projects/detail/?pid=6700>

2IBM Cost of Data Breach Study 2024

3IBM Cost of Data Breach Study 2025

4https://internationalhockey.fandom.com/wiki/Swiss_National_Team