**ESTADO DEL ARTE**

**Hay bastantes trabajos sobre videojuegos de ciberseguridad y cómo estos ayudan a las personas a aprender a tomar decisiones**

* Kavak, H., Padilla, J. J., Vernon-Bido, D., Diallo, S. Y., Gore, R., & Shetty, S. (2021). Simulation for cybersecurity: state of the art and future directions. Journal of Cybersecurity, 7(1), tyab005.
* Oroszi, E. D. (2020). Using Gamification to Improve the Security Awareness of Users: The Security Awareness Escape Room. ISACA Journal, 4.
* Tkacik, D. (2021). Play a Video Game, Learn Cybersecurity Skills. [Carnegie Mellon University](https://www.cmu.edu/news/stories/archives/2021/december/etc-cybersecurity-video-game.html)

En estas otras publicaciones habla sobre cómo proyectos de inteligencia artificial ayudan a los sistemas de ciberseguridad

* Khan, M. A., Merabet, A., Alkaabi, S., & El Sayed, H. (2022). Game-based learning platform to enhance cybersecurity education. [Education and Information Technologies, 27, 5153–5177](https://link.springer.com/article/10.1007/s10639-021-10807-6)
* Barmpakas, A., & Xinogalos, S. (2023). Designing and Evaluating a Serious Game for Learning Artificial Intelligence Algorithms: SpAI War as a Case Study. [Applied Sciences, 13(10), 5828](https://www.mdpi.com/2076-3417/13/10/5828)

Reinforcement Learning aplicado a entornos de ciberseguridad

* Nguyen, T. T., & Reddi, V. J. (2021). Deep Reinforcement Learning for Cyber Security. Journal of Cybersecurity, arXiv:1906.05799 1.
* Sewak, M., Sahay, S. K., & Rathore, H. (2022). Deep Reinforcement Learning for Cybersecurity Threat Detection and Protection: A Review. arXiv:2206.02733 2.
* Lei, Y., Ye, D., Shen, S., Sui, Y., Zhu, T., & Zhou, W. (2023). New Challenges in Reinforcement Learning: A Survey of Security and Privacy. arXiv:2301.00188 3.
* Borchjes, L., Nyirenda, C., & Leenen, L. (2023). Adversarial Deep Reinforcement Learning for Cyber Security in Software Defined Networks. arXiv:2308.04909 4

Aquí habla sobre q-learning ( Reinforcement Learning ) aplicado directamente a un juego de ciberseguridad

* Khan, M. A., Merabet, A., Alkaabi, S., & El Sayed, H. (2022). Game-based learning platform to enhance cybersecurity education. [Education and Information Technologies, 27, 5153–5177](https://link.springer.com/content/pdf/10.1007/s10639-021-10807-6.pdf)