



GUIDING THE MITIGATION OF EPIDEMICS WITH REINFORCEMENT LEARNING

prof. dr. Pieter Libin
Artificial Intelligence lab
Vrije Universiteit Brussel



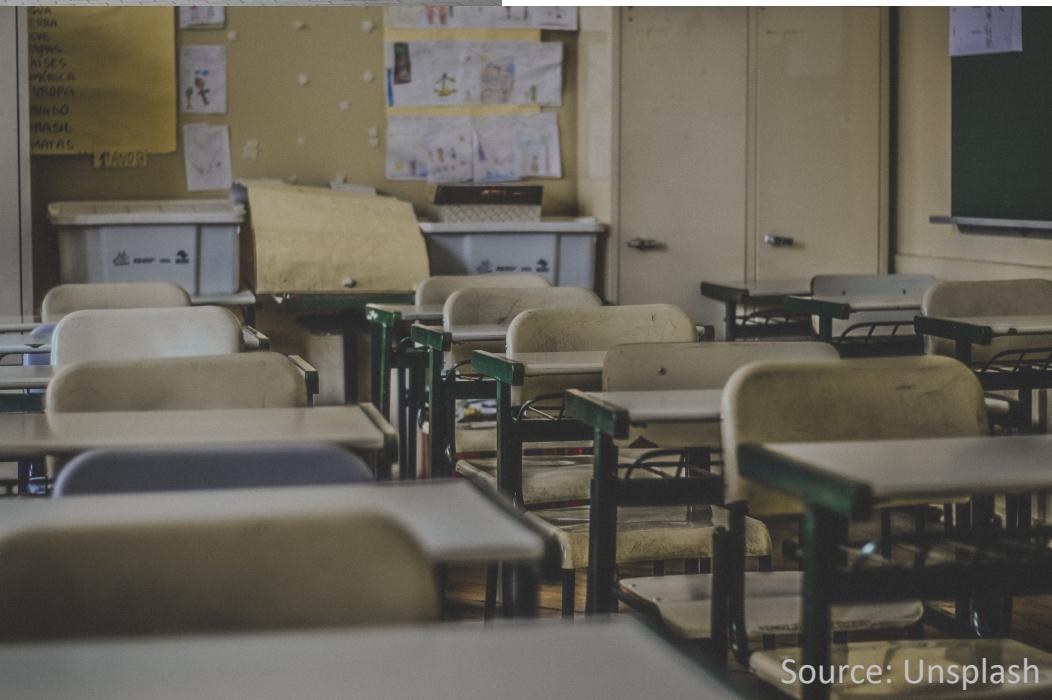


The New York Times

Why the Global Recession Could Last a Long Time



Source: Unsplash

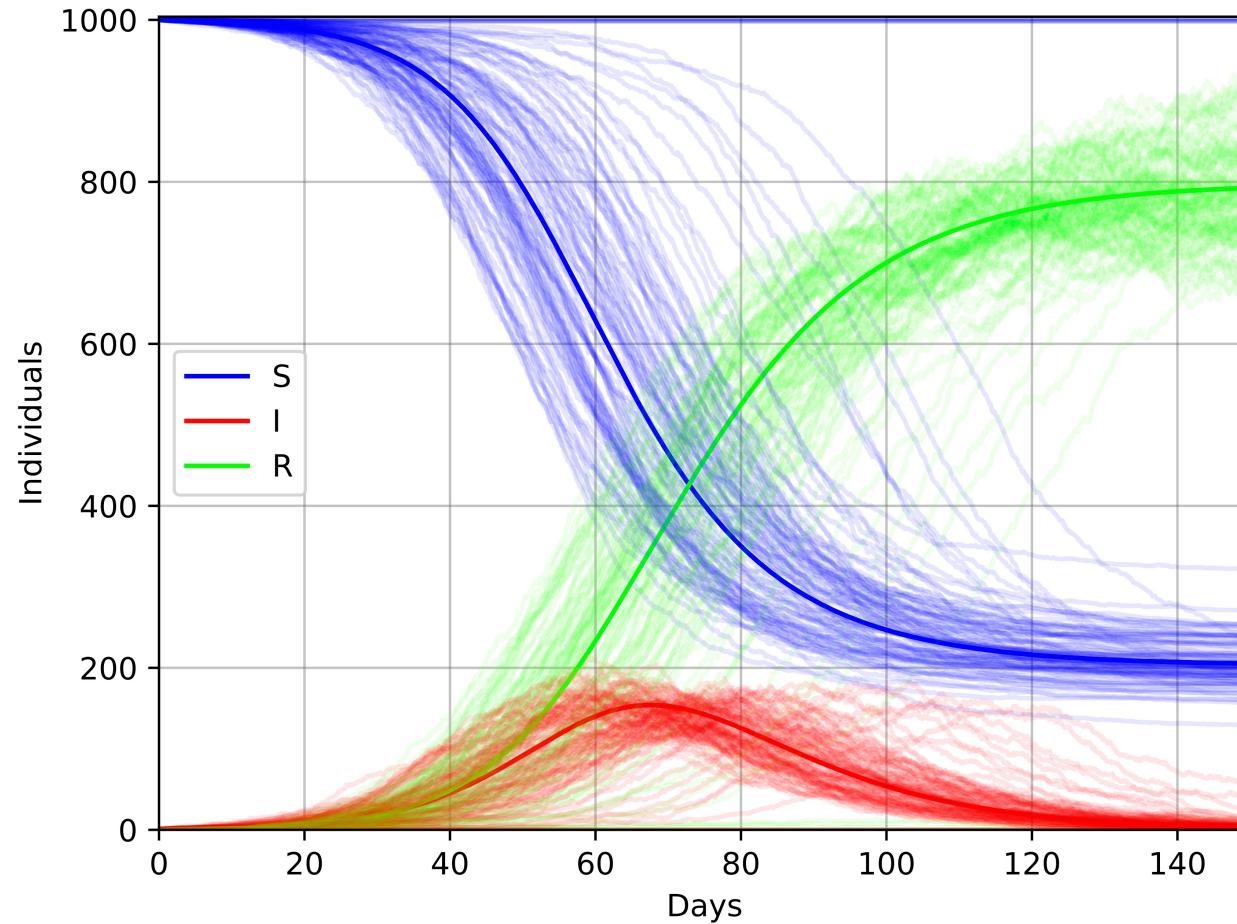


Source: Unsplash

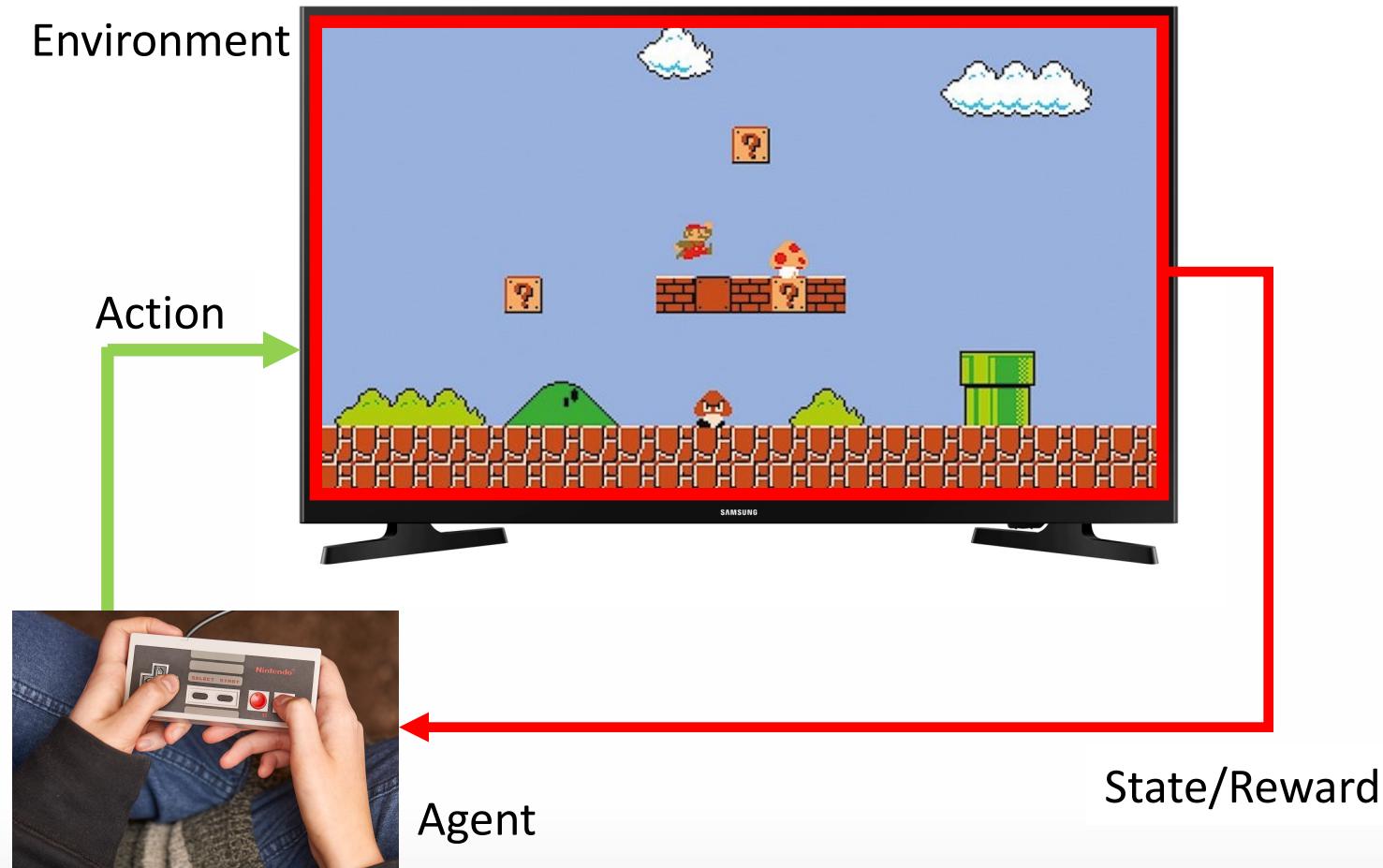


Source: Unsplash

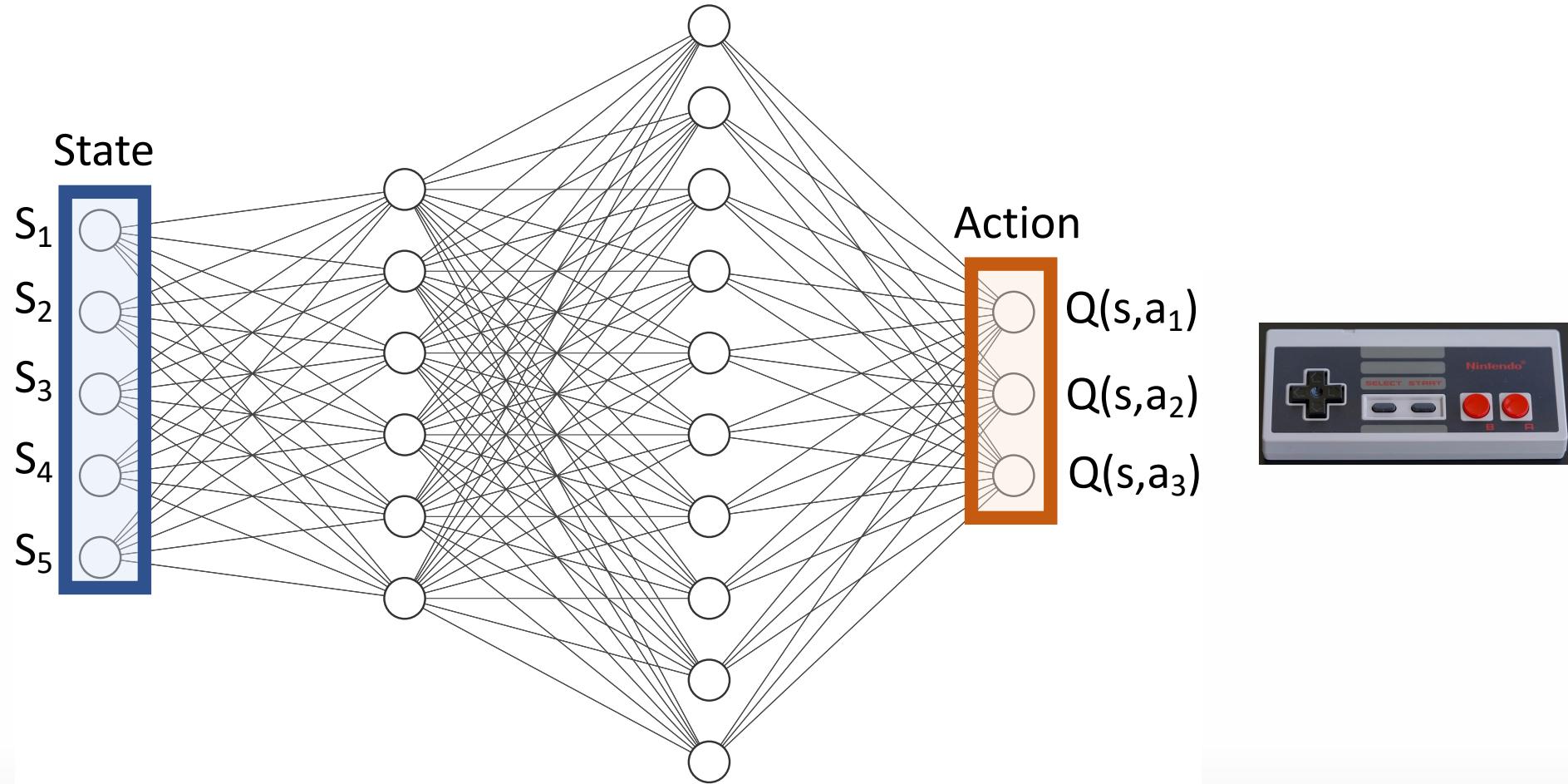
EPIDEMIOLOGICAL MODELS



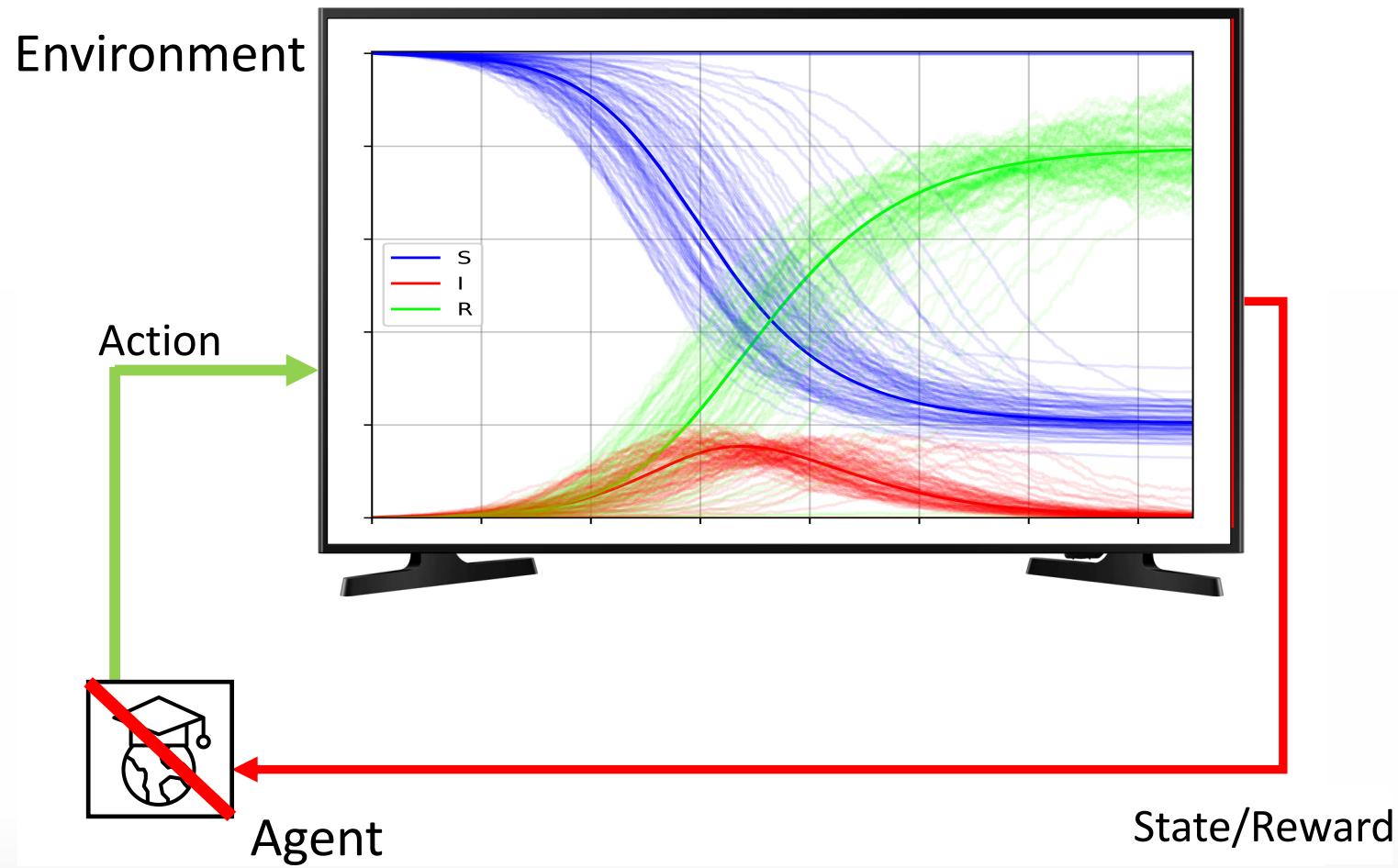
REINFORCEMENT LEARNING (RL)



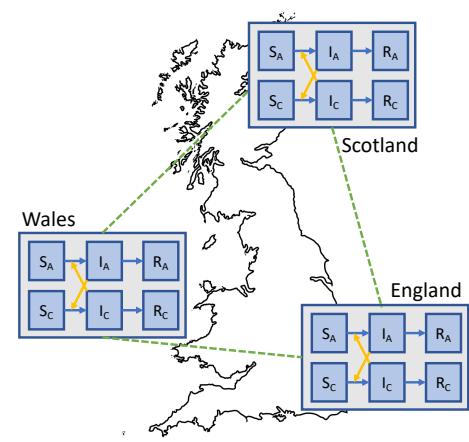
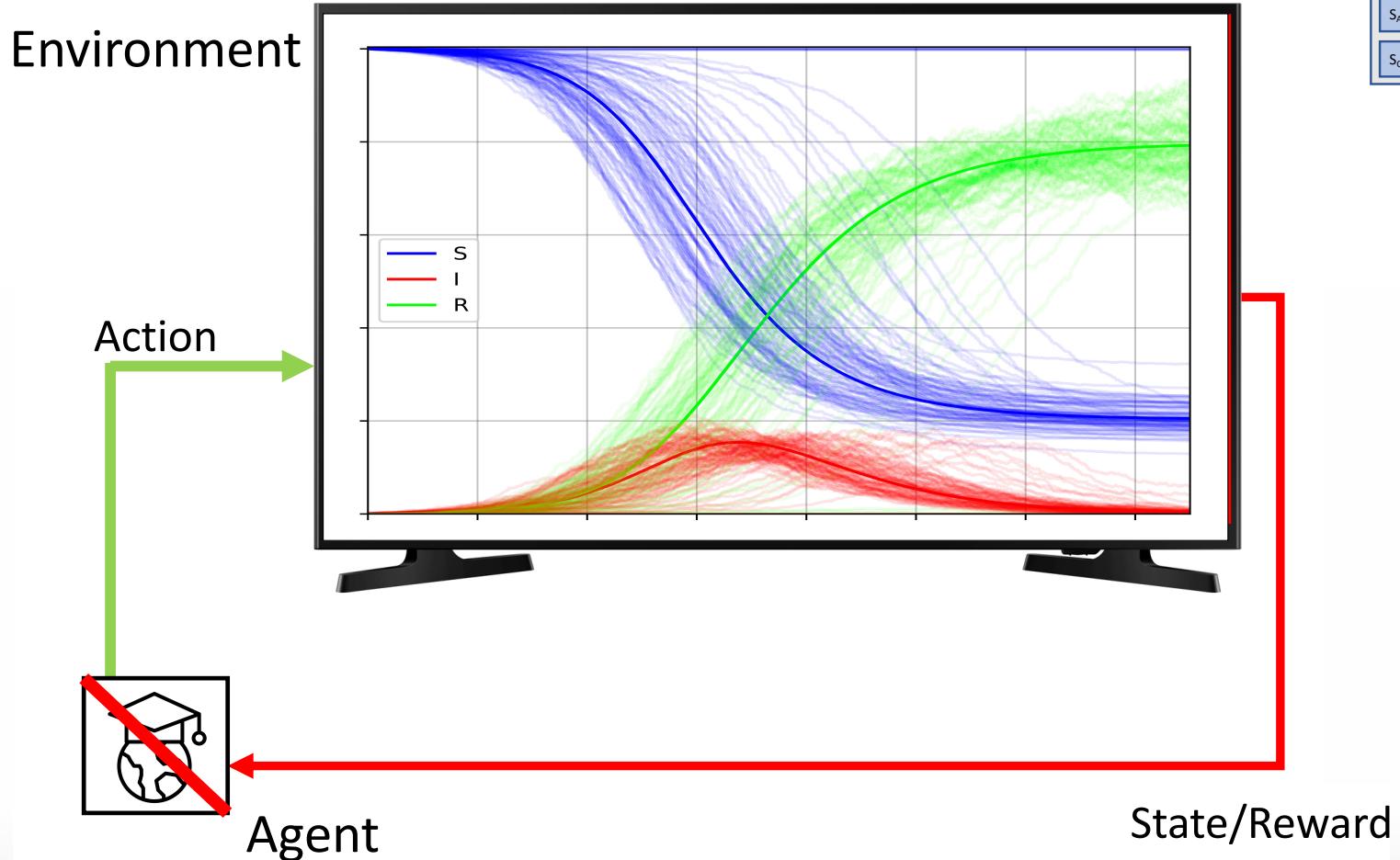
DEEP REINFORCEMENT LEARNING



DEEP RL FOR EPIDEMIC CONTROL



DEEP RL FOR EPIDEMIC CONTROL



REFERENCES

- Libin, P., et al. "Deep reinforcement learning for large-scale epidemic control." European Conference on Machine Learning (2020).
- Libin, P., et al. "Bayesian best-arm identification for selecting influenza mitigation strategies." European Conference on Machine Learning (2018).

ACKNOWLEDGMENTS

Arno Moonens, Timothy Verstraeten, Jelena Grujic,
Kristof Theys, Dierik Rijers,
Niel Hens, Philippe Lemey, Ann Nowé



THANK YOU! ANY QUESTIONS?



 Pieter.Libin@vub.be
 [@PieterLibin](https://twitter.com/PieterLibin)



prof. dr. Pieter Libin