LES DERNIERES AVANCEES DU REINFORCEMENT LEARNING

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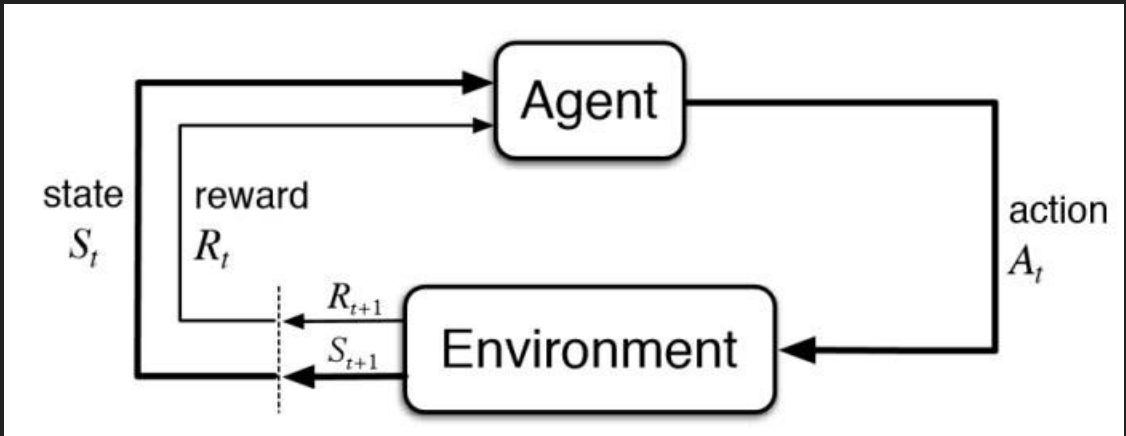
Encadrant : Liming CHEN

Présentation du Reinforcement Learning



Principe de « TRIAL & ERROR »

Source image : www.kdnuggets.com

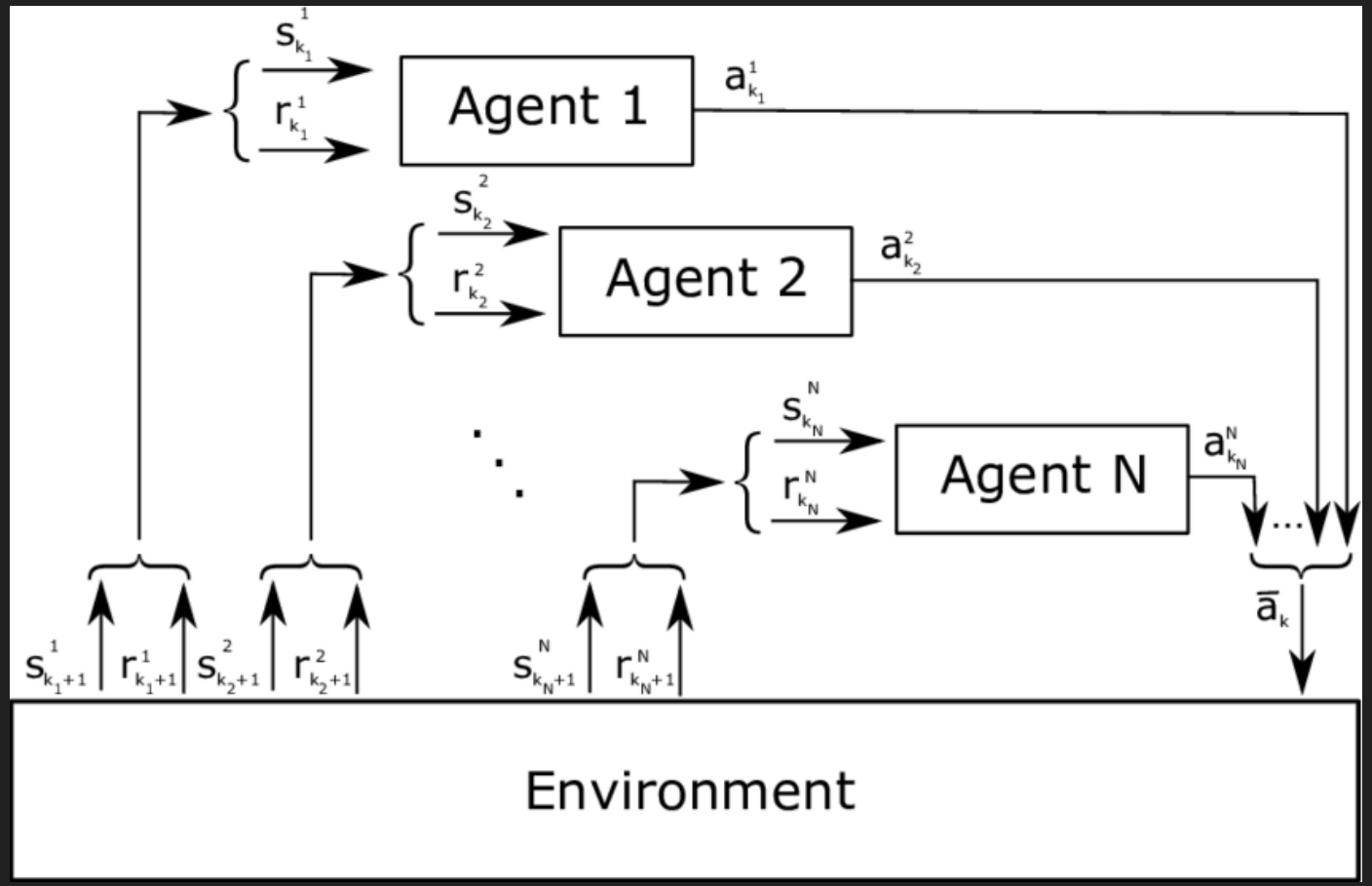
Présentation des outils de veille

Google Scholar

Google Alerts

diigo

Multi-agent Reinforcement Learning



Source image : www.medium.com

Multi-agent Reinforcement Learning

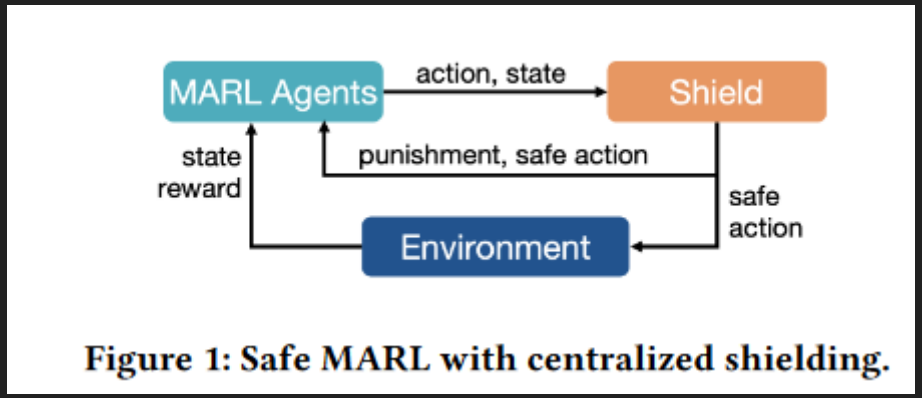
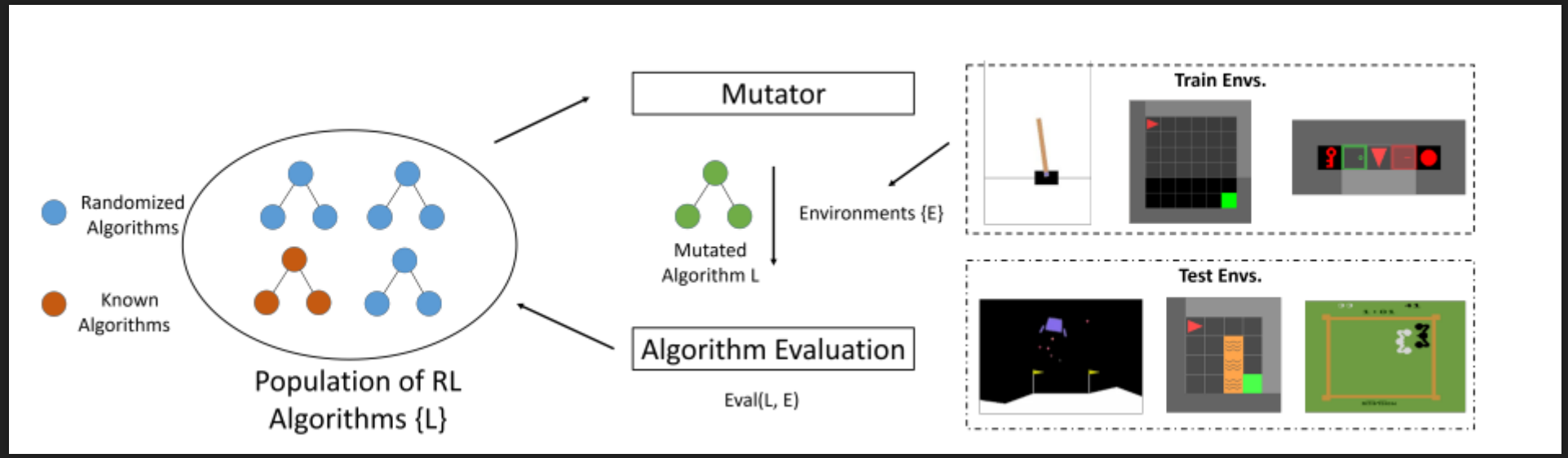


Figure 1: Safe MARL with centralized shielding.

Source image : *Safe Multi-Agent Reinforcement Learning via Shielding*

Meta-Learning & RL



Source image : *Evolving Reinforcement Learning Algorithms*

RL & Injection SQL (exemple simple)

Nom : Dupont MDP : truc

```
SELECT uid FROM Users WHERE name = 'Dupont' AND password = '45723a2af3788c4ff17f8d1114760e62';
```

Nom : Dupont';-- MDP : peu importe

```
SELECT uid FROM Users WHERE name = 'Dupont';-- ' AND password = '45723a2af3788c4ff17f8d1114760e62';
```

```
SELECT uid FROM Users WHERE name = 'Dupont';
```

RL & Injection SQL

Objectif de l'agent : récupérer une donnée (le « drapeau »)

Actions : envoi de requêtes SQL

Reward : positif si donnée récupérée, négatif sinon

Limitations :

Environnement statique

Présence d'une vulnérabilité connue

Merci de votre attention