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RL

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# Chapter 1

## RL

### Overview

Reinforcement Learning (RL) allows to improve the selection of applicable Knowledge Items (actions) based on states and rewards.

## Chapter 2

# Module Documentation

### 2.1 Entities

#### 2.1.0.1 ogit/RL/LearningStatistics

RDF Schema for learning service statistics.

- id: <http://www.purl.org/ogit/RL/LearningStatistics>
- valid-from: Thu Apr 07 00:00:00 UTC 2022
- creator: Liudmyla Nechepurenko
- scope: NTO
- parent: ogit/Node

#### attributes

- optional:
  - [ogit/RL/gamma](#)
  - [ogit/RL/qValues](#)
  - [ogit/RL/returnsCount](#)
  - [ogit/RL/returnsSum](#)
  - [ogit/RL/totalRewardsSum](#)

## 2.2 Attributes

### 2.2.0.1 ogit/RL/totalReward

Specifies the total reward of the issue for Reinforcement Learning.

- id: <http://www.purl.org/ogit/RL/totalReward>
- valid-from: Thu Jan 02 00:00:00 UTC 2020
- creator: Rudi Schäfer

### 2.2.0.2 ogit/RL/qValues

Specifies the q value of the state/action pairs in Reinforcement Learning.

- id: <http://www.purl.org/ogit/RL/qValues>
- valid-from: Thu Apr 07 00:00:00 UTC 2022
- creator: Liudmyla Nechepurenko

used

- optional:
  - [ogit/RL/LearningStatistics](#)

### 2.2.0.3 ogit/RL/returnsCount

Specifies the number of returns calculated for a particular state/action pair in Reinforcement Learning.

- id: <http://www.purl.org/ogit/RL/returnsCount>
- valid-from: Thu Apr 07 00:00:00 UTC 2022
- creator: Liudmyla Nechepurenko

used

- optional:
  - [ogit/RL/LearningStatistics](#)

#### 2.2.0.4 ogit/RL/gamma

Discount factor in calculating the discounted reward for Reinforcement Learning.

- id: <http://www.purl.org/ogit/RL/gamma>
- valid-from: Thu Apr 07 00:00:00 UTC 2022
- creator: Liudmyla Nechepurenko

used

- optional:
  - [ogit/RL/LearningStatistics](#)

#### 2.2.0.5 ogit/RL/totalRewardsSum

Specifies the sum of all total rewards acquired for a specific state/action in Reinforcement Learning.

- id: <http://www.purl.org/ogit/RL/totalRewardsSum>
- valid-from: Thu Apr 07 00:00:00 UTC 2022
- creator: Liudmyla Nechepurenko

used

- optional:
  - [ogit/RL/LearningStatistics](#)

#### 2.2.0.6 ogit/RL/returnsSum

Specifies the sums of all returns calculated for a specific state/action in Reinforcement Learning.

- id: <http://www.purl.org/ogit/RL/returnsSum>
- valid-from: Thu Apr 07 00:00:00 UTC 2022
- creator: Liudmyla Nechepurenko

used

- optional:
  - [ogit/RL/LearningStatistics](#)

#### 2.2.0.7 ogit/RL/state

Specifies the state of the issue for Reinforcement Learning.

- id: <http://www.purl.org/ogit/RL/state>
- valid-from: Thu Jan 02 00:00:00 UTC 2020
- creator: Rudi Schäfer