



# Faculty of Mathematics and Computer Science

## Multi-agent systems course (MAS)

### Mobile multi-agent systems for distributed data mining

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#### Abstract

The technological progress in our modern society has reached a level of maturity in several areas such as data storage or computing that allows massive amounts of data to be stored and processed. Another key aspect is the evolution of artificial intelligence which aims to automate several aspects of our lives. But in order to achieve this, these algorithms need to be fueled with as much information as possible. This information can be extracted from raw data, therefore data plays a fundamental role in our modern civilization.

Given this demand for data, a new domain that would handle it needed to emerge. Such a domain is data mining which is the process of analyzing large sets of data to extract useful information and patterns. It involves using a combination of statistical analysis, machine learning algorithms, and database systems to uncover hidden insights in data that can be used for decision-making, prediction, and optimization.

Traditionally, data storage was quite limited, but nowadays, especially due to the internet, data is more distributed than ever. As such, data mining had to adapt to this distributed environment. One way to achieve this is through mobile multi-agent systems (MAS) which are important in distributed data mining because they provide a flexible, scalable, robust, and efficient solution for analyzing large data sets in a distributed environment. By distributing the workload of data mining tasks across multiple agents, mobile MAS can handle large-scale data mining tasks and adapt to changing data sources. They can also protect the privacy of data by distributing it among agents and reducing the amount of data that needs to be transmitted over a network. This makes mobile MAS an ideal solution for distributed data mining applications.

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#### 1. Introduction

I would like to present in week 12.

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## 2. Placement in the general field

## 3. Method

## 4. Conclusions

## References

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