



University of Ljubljana  
Faculty of Computer and  
Information Science



### *Laboratory for Cognitive Modeling*

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*Laboratory for Cognitive Modeling (LKM) is looking for partners who need support with data analytics, data mining, or big data analyses. We offer our collaboration as a consortia partner in projects from various fields that require our expertise, such as ICT, medicine, societal challenges, transport, cognitive modeling, industry, finance, and others.*

**MISSION** Data analytics, machine learning and data mining search for patterns and regularities in moderate to large databases by learning predictive and descriptive models of data. Generated models can be used for explanation of data, simulations, process control, prediction, and solving new related problems.

The applications of our work reaches to all fields where data are being collected and need to be analyzed, such as: **medicine** (diagnostics, prognostics), **finance** (banking, insurance, risk), **social, psychological and cognitive sciences**, **industrial and monitoring** applications.

**PROFILE** Laboratory for cognitive modeling (LKM) at the University of Ljubljana performs the state-of-the-art research and applications in data analytics, data mining and big data. The main field of our work includes:

- data mining, machine learning and statistical analyses,
- modeling of numerical, symbolic, spatial, textual and image data,
- data analytics,
- big data and modeling in the cloud,
- transparent explanation of predictions,
- estimation of data quality and data importance,
- estimation of prediction reliability,
- interactions of various parameters,
- recommendation systems, e-learning,
- user profiling (web, both client and server-side),
- modeling of geographical data.

**REFERENCES** LKM collaborates with several European universities and research institutions. In the last 10 years we have participated in 6 international projects with partners from more than 20 universities. Members are (co)authors of over 360 scientific papers and 11 books that were cited over 1200 times by international researchers and practitioners.