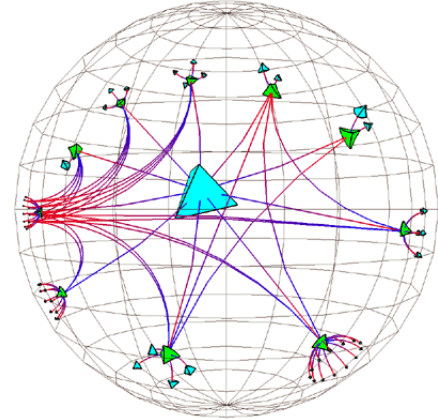


# A Guide to Web Research

Mini-course by Yury Lifshits

Stuttgart, Spring 2007



Course webpage:

<http://logic.pdmi.ras.ru/~yura/webguide.html>

Goal of this course is to build a bridge between industrial community and theoreticians in the area of web technologies. During four talks we survey existing approaches, discuss possible formalizations and propose a long list of open algorithmic problems.

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14.02.2007 **Advertising Engines.** algorithms for storing ads, choosing most relevant ones, and organizing auctions between advertisers.

TBA **Large-Scale Algorithms.** Efficient solutions for machine learning, classification and nearest neighbors in multidimensional spaces. Sparse computing. Fast algorithms for PageRank.

TBA **Web Mining.** Hubs and authorities, mining in folksonomies and social networks, blogosphere analysis.

20.03.2007 **Semantic Search.** Short intro to main components of Semantic Web: RDF, OWL and SPARQL. Architecture of question answering systems.

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Second and third talks will be scheduled somewhere between 21.02.2007 and 13.03.2007. What are your preferences?

We organize several informal discussions every week. Mainly it consists of proposing new algorithmic problems around web technologies and attempts to solve them. Please tell me, send a letter to [yura@logic.pdmi.ras.ru](mailto:yura@logic.pdmi.ras.ru), or knock to the room 1.156 if you want to join us next time.

There is an idea to write down all four lectures to a survey paper. Do you want to participate?