WT2.11: Uppsala University,Sweden

Report

Activities performed during the visit

in　　　　Uppsala University,Sweden

period:　　28.09.2014 -12.10.2014

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Personal Information

Radosław Michalski and Piotr Bródka, faculty members of Wroclaw University of Technology, faculty of Computer Science and Management, Poland visited **Uppsala University**, Department of Information Technology, Uppsala, Sweden in the period from September 28, 2014 to October 10 (Piotr Bródka) or October 12 (Radosław Michalski), 2014 in order to carry out research activities in the field of network intelligence, especially social network analysis. The goal of the visit was to start the joint research with Dr. Mattego Magnani and his colleagues what has been planned during the previous incoming visit of Dr. Magnani – the group is named formally Uppsala DataBase Laboratory but has a broader area of expertise than just databases.

Information about Seminar

There was also a plan to give two seminars, entitled "Community detection in multi-layered social networks" and "Spread of influence in temporal social networks." - together with the brief presentation of ENGINE research groups profile and possible ways of collaboration within the ENGINE project, to the broader audience. However due to the time constrains (seminars, meeting, teaching and other duties) the CS faculty were unable to to find a slot that was fine for most of the potentially interested researchers within this two-week period. This is why both researchers from Poland described their research activities and areas of interest to the research group led by Dr. Matteo Magnani and few other faculty member during individual meetings. Moreover, Radosław Michalski and Piotr Bródka gave brief introduction of themselves and their research areas to the whole Computer Science faculty during regular department's meetings on Friday, October 3, 2014.

Description of scientific activity in details

(Please describe value added to the ENGINE project i.e. new knowledge, new skills with respect to the objectives of the project, the assigned common area of future cooperation

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with the partner, plans for common research, projects, publications and how it could be used in the scope of ENGINE)

The research were performed mainly with Dr. Matteo Magnani and his co-workers. Since both groups already knew each other (at least most of people), the time has been more effectively spent on the research itself. Research focused on the models of evolving social networks, i.e. networks that not only grow, but sometimes shrink as well, due to varying nodes' activity. These two weeks allowed to present to each other known ways of modeling the temporal network evolution and to find out the way which the upcoming research will follow. This includes both, the real world data analysis and the development of mathematical models, but the goal is to build a model that can be observed in real world data, i.e. to combine the approaches used by physicists and computer scientists separately. The work plan assumed a number of meetings where the problem statement has been developed and each meeting ended with a to-do list until the next meeting. Finally, a strategy of two publications has been chosen – the initial idea will be submitted to the conference and the full research article will be sent to JCR-listed journal.

Apart from researchers from Uppsala University one more PhD student visiting Uppsala joined to this research providing the datasets - Davide Vega from University of Catalonia (Barcelona Tech), Barcelona, Spain.

Piotr Bródka and Radosław Michalski also took part in consultations for a Horizon 2020 project that has been submitted at that time – they provide their feedback to the group submitting the proposal.

The group agreed that the next research visit(s) will be organized in 2015Q1.

Information referring to the intellectual property

(the generally binding low in this area in the visited country and procedures of patenting);

Unfortunately this topic was not examined thoroughly during the visit, because the office that is responsible for that area was very reluctant to meet with them, so the team focused on the research. However the UU Innovation[1] office provided us with materials which allows us to understand a little bit how the office works. UU Innovation provides the support for three groups of stakeholders:

1. Researchers
    a. Business development - Business Counseling they help researchers evaluate his idea and its potential and plan how to best move forward with his business development
    b. Patent Counseling – They help, free of charge, to investigate whether researchers idea has commercial potential and is worth protecting and developing further.

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[1] http://www.uuinnovation.uu.se/?languageId=1

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c. Legal Counseling - If researcher wants to do research or collaborate in other ways with companies or other entities outside the university, they help him with agreements and intellectual property rights.

d. Financing – help with financing the research either form Uppsala University or other organizations and agencies.

2. Companies/External organisations - Collaborative research with Uppsala University founded from both research funding agencies and from the participating companies.

3. Students

a. Drivhuset helps students to start and run a business or otherwise realize ideas. Drivhuset offers individual counseling, training and contacts. Counseling is free and is funded by, among others, Uppsala University.

b. Venture Cup is a business plan competition where you compete with your idea and your business plan in three phases during an academic year. As a participant you get feedback, coaching, training, inspiration and business contacts. Participation is free of charge.

c. Uppsala Innovation Center, UIC, is a business incubator for growth in the Uppsala region. UIC offers advice and support in business development through various programs in which entrepreneurs participate with their ideas. UIC is partly owned by UUAB Holding.

d. The Entrepreneur School is a course of study for those who study science and technology. During the one-year course you study subjects such as business planning, market analysis, and intellectual property and business law. During the year, you will also run a business project from concept to commercial reality.

e. Education: Stand-alone course in entrepreneurship. The Department of Business Studies organizes an annual course in Entrepreneurship (7.5 credits). This course covers, among other things, introduction and marketing of new products and services, business valuation, financing, strategy, negotiations, and trademarks and patents.

Detailed information can be found at http://www.uuinnovation.uu.se/

Description of the procedure of cooperation between universities and SME in visited country

(how it is organized, the sources of funding, the opinions about drawbacks and strengths of existing solution).

Except the info gathered from UU Innovation Researchers from WrUT also took part in the seminar on machine learning organized on October 8th. The talk was given by Daniel Gillblad from Swedish Institute of Computer Science and it was entitled "Discussion on Learning Machines Center at SICS". However, actually during this talk presenter showed how the cooperation between business and research centres looks like in Sweden. It seems that nowadays organizations of this kind suffer not from the lack of projects, but are overloaded by the work due to enormous number of concurrently

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run projects. Probably in the Swedish model at least in this area the work is sent to the research centres rather than to academia itself, but these centres collaborate with academia closely.

REMARK: Apart from this information also a program of the visit and the presentation in electronic version should be given to the project office (please send the report to Monika.rok@pwr.wroc.pl). Please respond to the points 1-5 for outgoing visit and points 1-3 for incoming visit.