

(For JSPS Fellow)

Form B-5

Date (日付)

24/11/2011 (Date/Month/Year: 日/月/年)

### Activity Report -Science Dialogue Program-

(サイエンス・ダイアログ事業 実施報告書)

- Fellow's name (講師氏名): Alena Neviarouskaya (ID No. P 11044 )

- Participating school (学校名): Toyama Prefectural Toyama High School

- Date (実施日時): 22/11/2011 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) Comprehensive Exploration of Attitudes in Text:  
Textual Attitude Retrieval and Analysis  
(in Japanese) テキストからアティチュードの広範的探求 :  
テキストアティチュードの検索と分析

- Lecture summary (講演概要): Please summary your lecture 200-500 words.

The lecture consists of five parts:

1. Belarus: my home country. In the first part of my lecture I showed the location and borders of my home country in Eastern Europe. Then, I demonstrated the national flag and the national emblem of Belarus and explained the meaning of their main elements. I mentioned non-official traditional symbols of Belarus: white stork, cornflower, and zubr, which is also known as European bison. After that, I described the population and ethnic groups, climate, and nature of Belarus. Special attention was also given to Belarusian culture and living style (national costume, traditional arts, cuisine), architectural treasures, industry, and famous Belarusians.

2. My education and motives for becoming a scientist. In the second part of my lecture, I said a few words about my education. I highlighted several reasons why I decided to become a scientist: (1) strong desire to develop novel automated systems that are useful for society; (2) attractive possibility to investigate different phenomena, create new methods, conduct experiments, compare different methods, and analyze results; (3) atmosphere of creativity and freedom in realizing research ideas in the academic institutions; (4) opportunity to participate in international conferences and internship programs, meet interesting people, discuss research and share ideas with them; (5) unique chance to visit many different countries.

3. Introduction to sentiment analysis. Sentiment refers to positive and negative opinions, judgments, subjective evaluations, and emotions expressed in text. Sentiment analysis is the computational study of how opinions, emotions, and attitudes are expressed in language. It includes methods and techniques for detection and extraction of subjective information from text.

In this part of my lecture, I described the following scientific fields that provide the basis, algorithms and methods for sentiment analysis: Natural Language Processing and Computational Linguistics. Then, I gave examples of analysis of sentiment on different levels (word level, sentence level, and document level), summarized the sentiment analysis tasks and methods proposed by researchers, and showed examples of applications of textual emotion recognition and opinion mining.

4. My research on exploration of attitudes in text. In this part of my lecture, first I gave the definition of "attitude" and "attitude types", and then I defined main research goals: (1) to develop new intelligent system for computational search, analysis, and interpretation of attitudes expressed in text; (2) to develop applications based on attitude-sensing system. I described the proposed methods for development of lexicon necessary for analysis of emotions, sentiment, and attitudes in text. After that, I explained the main principles of the system for attitude analysis that we developed.

5. Demo. Based on the textual attitude analysis system, several successful applications were developed. In the final part of my lecture, I demonstrated the following applications: (1) web-based Attitude Analysis Model; (2) AffectIM; (3) EmoHeart; and (4) iFeel\_IM!.

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) 110 min (分), Q&A time (質疑応答時間) 10 min (分)

◆Lecture style (ex.: used projector, conducted experiments)

(講演方法 (例: プロジェクター使用による講演、実験・実習の有無など))

The lecture was presented by means of PowerPoint slides and projector. There was interaction with students during the lecture: I asked them some questions and gave tasks.

◆Interpretation (ex.: assistance by accompanied person, provided Japanese explanation by yourself) (通訳 (例: 同行者によるサポート、講師本人による日本語説明))

Assistance by accompanied person

◆Name and title of accompanied person (同行者 職・氏名)

Mr. Chao Yang

◆Other note worthy information (その他特筆すべき事項):

Before the lecture, the Principal of the Toyama High School, Mr. Hirokazu Yamazaki, gave introduction speech.

- Impressions and opinions from accompanied person (同行者の方から、本事業に対する意見・感想等がありましたら、お願いいたします。):