

Scientific report for the PROMISE winter school 2012

Zinal, Switzerland, January 23-27, 2012

Summary

The PROMISE winter school on information retrieval meets information visualization took part in the small resort of Zinal in Valais, Switzerland in January 2012. The school was mainly addressing Master and PhD students to participate in the school that was at the border between information visualization and information retrieval, two domains that have traditionally been separated but could well profit from advances in the other domain. In total 17 speakers, 62 participants and four organizers were present at the event spanning over 25 countries and all continents with the exception of Australia.

The school started with introductory talks and then went on through several topics from user-tests, user-based evaluation, human computer interaction, number visualization towards subjects such as retrieval in social media domain and crowd sourcing. On the first evening a poster session was organized giving the participants the possibility to present their work. This helped all participants to get a better idea of each other's work and started discussions from the first day.

In general, talks were taking place each morning and each late afternoon leaving place for discussions and networking with a large break in the early afternoon. Each evening a common dinner rounded up the day. Many discussions among participants took place during the breaks, particularly the lunch breaks. Also the evenings the discussions continued and many links between the participants were created.

An evaluation of the event highlighted that participants very much appreciated the talks and the atmosphere of the school. The place was seen as excellent but being in a small village meant that people had to share rooms, which was not appreciated by all. Not having a professional meeting room was another point that people mentioned. The poster session was regarded as very good to create links and start the meeting knowing what other people were working on.

More details can be seen in the detailed program and list of speakers in the annex.

The 15 scholarships of the ELIAS project of 500 Euros allowed particularly to participants from underprivileged countries to participate in the school and have the registration and part of the travel.

Scientific content and discussions at the event

The detailed program of the winter school can be found in the annex including the speaker names and affiliations.

The program really highlighted the main experts in the domains of information retrieval and information visualization.

A common bus was organized from Sierre to Zinal before the beginning of the conference and over 50 persons were using this proposed service.

The program started with two introductory talks, one on information retrieval, and one on information visualization. The goal of this first day was to introduce all students to the topics of the conference and give a global overview of what was to follow. Then, a poster session took place chaired by Prof. Peter Ingwersen. This gave all students the possibility to present their own work topic. It could be seen that a large variety of topics was present and vivid discussions started at the poster session already. In connection with the poster session a welcome reception was organized in the place of the poster session so there were over two hours available for people to start and present at the posters. All posters were kept up through the entire conference, so discussions could continue during all five days. A best poster price was given out and also two runner up prices, consisting each of a bottle of wine.

The second day was focusing on users starting with human computer interaction (HCI), then an HCI view of information retrieval (IR) given by Maria Francesca Costabile and Tiziana Catarci. The afternoon user-centered IR and evaluation of user centered IR were given by Elaine Toms and Kalervo Järvelin. It became clear that user models and user tests are extremely important but also not easy to realize. Differences in the approaches between the HCI and IR community were discussed.

The third day highlight several aspects of IR and also evaluation of IR systems. Jacques Savoy presented multilingual information retrieval including the main techniques used with many details on current challenges. Stéphane Marchand-Maillet then presented multimedia retrieval and techniques used for multimedia retrieval and classification. The afternoon was dedicated to IR evaluation starting with Donna Harman presenting TREC style evaluation and the main lessons learned from several years of TREC. Stephen Robertson then went into details of performance metrics and their meaning and application field. The various influences on the evaluation and the most solid way of evaluating system should have been made clear to the participants at this point.

The fourth day was again mixing the aspects of IR and also information visualization. The morning had two presentations of visualization starting with number visualization of Giuseppe Santucci and then visual analytics of Silvia Miksch. Both presentations gave many practical examples of good and poor visualization. This should also help the Master and PhD students to base their own work on best practices and on clear communication and visualization. The afternoon was then again on more IR-related topics. Owen Conlay presented on web personalization and many experiences gained from research projects on how web pages and web search can be personalized to maximize impact. Maarten de Rijke then presented on log file analysis and all the information that is stored in log files and can be extracted with some knowledge. Log files are clearly an important information source in analyzing user behavior and getting to know not only behavior but interaction of people with collections.

The last day was dedicated to two very hot topics in the Web 2.0 are and its link to information retrieval and information visualization. Gareth Jones presented on the use of crowd sourcing and its many applications. Particularly the experiences in using crowd sourcing for evaluating IR systems were explained, the types of techniques that are used and how the quality of the results can be controlled. This is clearly a quickly changing and moving domain and the topic will continue changing over the coming years. The last presentation was on the use of social media and information retrieval in social media. Alejandro Jaimes presented the many tools and systems used and employed by Yahoo in the social media domain including some interesting and critical remarks on the topic.

Very few people left the winter school before its official end, most likely because the participants were convinced by the quality of the presentations. A common bus was organized for all persons to go from Zinal to the Sierre train station.

All presentations were 90 minutes in total and then there were short breaks in between two sessions in the morning and the afternoon. This time was well used for discussions and for checking the posters that remained visible the entire time. Each afternoon a four-hour break assured that participants had enough time for common activities such as discussions on scientific topics, walks in the snow or skiing. With the beautiful weather of the last few days most people went up the cable car and took advantage of the fantastic view from Zinal towards the mountains. Each evening a common dinner was organized and rarely the discussions on the dinner tables stopped before midnight and were sometimes continued in the bars of Zinal even later on.

Several of the presenters agree to write a book chapter for proceedings book of the winter school. It is also planned to invite the best three posters of the winter school to submit a chapter to this book.

assessment of the results and impact of the event on the future directions of the field

The PROMISE winter school brought together two domains that have traditionally been separated. Both, information retrieval and information visualization can very well profit from each other and this winter school will hopefully spark several such collaborations, potentially among the presenters but also among the participants.

Direct impact of such a winter school is very often quite difficult to describe and quantify. Several of the participants told us afterwards that they found people working in closely related fields and that they plan to collaborate in the future. This may result in common publications among the participants.

Several of the PhD students were also saying that the presentations helped them sharpening the topic of their PhD and being now aware of other approaches to follow. The methodologies presented on the evaluation and visualization should also give the PhD students clear ideas on best practices and also errors to avoid, potentially a quite important impact-

Several Master students told us that having listened to so many presentations helped them to clear a clearer picture about doing a PhD and also about what to take care of in terms of the topics to choose.

Very difficult to quantify is clearly the multicultural aspects of the school where people from many countries (affiliations from 25 countries, most likely many more countries of origin), different religions and quite varied backgrounds discussed, exchanged opinions and drank beers with. This impact can go well beyond any scientific impact.

A proceedings book is currently under preparation and this proceedings book will clearly help to increase the overall impact of the winter school and keep a lasting impressions on the diverse set of topics and keep best practices up for students and also post docs.

All presentations of the school are already available from the school web page.

Annexes:

Program and speakers

Monday, 23 January:

- 13.00 bus from Sierre to Zinal *
- 13.30 - 14.30 Registration
- 14.30 - 16.00 Introduction to IR, Keith van Rijsbergen, University of Glasgow, Scotland, UK
- 16.30 - 18.00 Introduction to IV, Alan Dix, Lancaster University, UK
- 18.30 - 20.00 Poster Session with Welcome Reception,
chair of the Poster prize: Peter Ingwersen, Copenhagen, Denmark

Tuesday, 24 January:

- 8.30 - 10.00 HCI Principles Maria Francesca Costabile, University of Bari, Italy
- 10.30 - 12.00 HCI View of Information Retrieval Evaluation
Tiziana Catarci, Sapienza, University of Rome, Italy
- 16.30 - 18.00 User-oriented Information Retrieval, Elaine Toms, University of Sheffield, UK
- 18.15 - 19.45 Evaluating User-oriented IR, Kalervo Järvelin, University of Tampere, Finland

Wednesday, 25 January:

- 8.30 - 10.00 Multilingual Information Retrieval,
Jacques Savoy, University of Neuchatel, Neuchâtel, Switzerland
- 10.30 - 12.00 Multimedia Information Retrieval,
Stéphane Marchand-Maillet, University of Geneva, Switzerland
- 16.30 - 18.00 TREC Style Evaluation,
Donna Harman, NIST, Gaithersburg, USA
- 18.15 - 19.45 Metrics, Statistics, Tests, Stephen Robertson, Microsoft Research, Cambridge, UK

Thursday, 26 January:

- 8.30 - 10.00 Number Visualization, Giuseppe Santucci, Sapienza, University of Rome, Italy
- 10.30 - 12.00 Visual Analytics,
Silvia Miksch, Vienna University of Technology, Vienna, Austria
- 16.30 - 18.00 Web Personalisation
Vincent P. Wade, CNGL, Trinity College Dublin, Ireland
- 18.15 - 19.45 Log File Analysis, Maarten de Rijke, University of Amsterdam, The Netherlands

Friday, 27 January:

- 8.30 - 10.00 Crowdsourcing, Gareth Jones, CNGL, Dublin City University, Ireland
- 10.30 - 12.00 Retrieval from Social Media, Alejandro Jaimes, Yahoo! Research Barcelona, Spain
- 12.30 bus back to the train station in Sierre

Participants

Muhammad Kamran Abbasi
Samir Abdou
Mitra Akasereh
moh ibrahim al kaff
Emmanuelle Beauxis-Aussalet
Richard Berendsen
Fatma Zohra Bessai-Mechmache
Debotosh Bhattacharjee
Ilya Boyandin
Ksenia Bykova
Rodrigo Calumby
Jorge Camargo
Aline Crédeville
Hélène de Ribaupierre
Ork de Rooij
Sebastian Dungs
Ann-Marie Eklund
Florian Evéquo
Volodymyr Floreskul
Antonio Foncubierta Rodríguez
Andre Freitas
Karin Friberg Heppin
Petra Galuscakova
Alba García Seco de Herrera
Luca Grilli
Vladimir Guchev
Parth Gupta
Aron Henriksson
Béat Hirsbrunner
Ali Hosseinzadeh Vahid
Vogt Joël
Julia Juergens
Ivana Kacar
Markus Kreuzthaler
Denis Lalanne
Nadine Mahrholz
Wehrle Marcel
Dimitrios Markonis
Hisham Mohamed
Jose G Moreno
Nada Naji
Joakim Nordström
Daan Odijk
Siiri Pärkson
Simone Peruzzo
Marko Radeta
Patrick Riehmann
Stefan Rietberger
Michail Salampasis
Gianmaria Silvello
Maria Skeppstedt

Eriks Sneiders
Pavel Stranak
Ahmed Tawfik
Luis Teran
Giuseppe Tino
Tuan Vu Tran
Mazareanu Valentin
Stef van den Elzen
Rita Wan-Chik
Olena Zubaryeva-Kummer
Damien Zufferey

Participating organizers:

Maristella Agosti
Nicola Ferro
Henning Müller
Alexandre Cotting