NEWSLETTER

Doll

RF transmitter

Battery

Touch sensing board

Capacitive sensor pad

Marta Sabou in Top Ten

Computer Games 2005

Towards 50 years of AI

The Three Cycle

News from the Belgium-Netherlands Association for Artificial Intelligence

High Potential

A former Editor-in-Chief

Great is great. It is a statement beyond any logic and it looks like an implicit message. Indeed, "great is great, but not in the Netherlands" would do more justice to our cultural climate and natural feelings. We like the wooden shoes and the tulips, but do not know how to handle the concept 'great'. This newsletter prefers to be an exception. We aim at being a front runner in the ECCAI countries assembled in the European Union. It gives us the opportunity to forget our "…. yes, but …." attitude. The Editorial Board of the BNVKI Newsletter wholeheartedly congratulates Marta Sabou with her appointment to belong to the "Ten Young Top Researchers in AI". For more details we refer to Frank van Harmelen's contribution on pp. 7-8 of this issue. Your former Editor is almost tempted to repeat the information given. It is a performance which may make our community proud.

In the 1950s The Netherlands had as their main population farmers and from them it is well known that they had to work hard. So, they all faced a similar competition three times a year when their kids came home with the performance list from school (a trimester report on progress made). Coming home with two tens, four nines and two eights may make you happy and even proud. "Dad, please, look at my report, it is good". "Dad will do so, after the noon dinner, otherwise the dinner will be cold before eating", was a regular answer. It is without saying: every kid between six and twelve was disappointed. The first time in his/her life he/she thought: how could my father have such a reaction? After the dinner, of course, Dad looked at the report and saw that it was good; so he remarked: "it is OK, but always remember that your talents are given to you by God, so your report is good, but nothing special; it is expected to be good". Times have changed and we are proud on Marta Sabou. Our congratulations are given to her, before our readers start eating from the contents of this issue.

The differences in culture are numerous. For the anthropologists they are great. For the Dutch people they are almost something to be alert on, sometimes to be ashamed of. Next to the congratulations to Marta (Ph.D. defence is on April 27, 2006, see pp. 9-10 of this issue), it is our pleasure to congratulate the Vrije Universiteit (they will certainly understand what is stated above), the Knowledge Representation group, and its leader Frank van Harmelen.

Some of our readers may think: again a list of ten. They may compare such a list with the list of the ten Greatest Englishmen, the ten Greatest Dutchmen, etc. Indeed, it resembles the American style and not the European one. But what is wrong with the American style?

Every researcher who has visited the United States or Canada has stories similar to the one below. After a lecture given at a University, you always receive a compliment: (1) if it was good, they tell you: it was excellent, (2) if it was not so good, they tell you that it was interesting. The double meaning of interesting is quite comfortable. Less than interesting does not exist.

If you go afterwards with your host to a restaurant and you tell your host that you recently bought a "Kever", whereas the host is in possession of a Cadillac, the host certainly will reply instantaneously: "This is fantastic, a Kever is a car that I like very much, it is a car which I would like to drive from my youth onwards. Unfortunately, I never had the opportunity to do so".
Many Dutchmen would reply in a similar position: "Why a Kever? A Cadillac is much better, and you should have money enough to spend it to a Cadillac".

I read with much pleasure that Marta Sabou comes from Romania. It is great that she is a high potential. Our hopes are that with this appointment the attitude in The Netherlands will change: we are looking for the great nominations and the person who receives one that is materialized sometimes thereafter should be congratulated in each Editorial, at least in the Editorial of the BNKVI Newsletter: Marta, thank you for helping us to change the Dutch attitude. The BVNKI wishes you much success in your further career.

P.S. The editorial is by Jaap van den Herik since Jos Uiterwijk was hospitalized for a week due to a small incident. Jos fully recovered from the incident and will resume work for the next issue.

TABLE OF CONTENTS

The photographs in this issue are by courtesy of Sander Bakkes (pp. 6) and Dag Spicer (pp. 8).

Front cover: Poultry Internet. The chicken doll and its electronic devices: touch-sensing board with battery and capacitive sensing-pads. Research on 'Human-Computer-Pet interaction' by Professor Adrian David Cheock.

The deadline for the next issue is: **April 7, 2006**.

BNVKI-Board News

Han La Poutré

In the upcoming half year, the BNVKI is involved in a number of activities for and with students. Importantly, the next BNAIS will soon be held: the Belgium-Netherlands AI Symposium for Students. This time, it will take place in Nijmegen, organised by the Nijmegen students, in the beginning of June and the program is already reaching its final form. The BNVKI encourages this event as an annual event: currently, it is the third BNAIS.

Apart from the BNAIS, the BNVKI is considering how to increase the relationships with and activities for students. AI students are often interested in science and research on the one hand, and also like to have contact with researchers in the field on the other hand. The BNVKI intends to be more involved in student organisations and likes to support them in several ways. At the moment, we are investigating what activities and contacts could be possible and interesting for both students and BNVKI.

Finally, a more regular item in this writing: the organisation of the next BNAIC is making progress and the call for papers is being published. The BNAIC will take place in Namur, Belgium, on 5 and 6 October, with the possibility of excursions and social events in the Ardennes on Saturday 7 October. As always, we encourage you to prepare your submissions to this BNAIC!

Abstract Ph.D. thesis:
On Games and Logics over Dynamically Changing Structures

Philipp Rohde
RWTH
Aachen, Germany

In the classical framework of graph algorithms, program logics, and corresponding model checking games, one considers changes of system states and movements of agents within a system, but the underlying graph or structure is assumed to be static. This limitation motivates a more general approach where dynamic changes of structures are relevant.

In this thesis, we take up a proposal of van Benthem from 2002 and consider games and modal logics over dynamically changing structures, where we focus on the deletion of edges of a graph, and transitions of a Kripke structure. We investigate two-player games where one player tries to reach a designated vertex of a graph while the opponent sabotages this by deleting edges. It is shown that adding the 'saboteur' makes these games algorithmically much harder to solve. Further, we analyze corresponding modal logics which are augmented with cross-model modalities referring to submodels from which a transition has been removed. On the one hand, it turns out that these 'sabotage modalities' already strengthen standard modal logic in such a way that many nice algorithmic and model-theoretic properties get lost. On the other hand, the model checking problem remains decidable.

The main limitation of modal logic is the lack of a mechanism for unbounded iteration or recursion. To overcome this, we augment the 'sabotage modal logics' of the first part of the thesis with constructors for forming least and greatest monadic fixed-points. The resulting logic extends the well-known mu-calculus and is capable of expressing iterative properties like reachability or recurrence as well as basic changes of the underlying Kripke structure, namely, the deletion of transitions. Finally, we introduce extended parity games where in addition, both players are able to delete edges of the arena and to store, and restore the current appearance of the arena by use of a fixed number of registers. We show that these games serve as model checking games for the aforementioned 'sabotage mu-calculus'.

Robot Imitation: Ph.D. defense
by Bart Jansen

Bart De Vylder
AI-lab VUB
Brussels, Belgium

On Friday, December 23rd, Bart Jansen from the AI-lab at the Vrije Universiteit Brussel defended his doctoral thesis titled "Robot Imitation". The motivation underlying his research was twofold. From a technical, engineering perspective the question rises how one can efficiently teach a robot a task. Instead of programming the robot by hand, a very satisfactory solution would be to demonstrate the task and let the robot imitate it. From a more scientific point one can wonder how a population of artificial agents can manage to agree on a repertoire of actions. Again, imitation seems a natural strategy.

In order to investigate these issues, Bart Jansen used the concept of an imitation game. Such a game is played between two agents. The first agent demonstrates an action, the second agent tries to

imitate this action and then the first agent decides whether this imitation was satisfactory. This general interaction scenario was applied to different settings.

In one experiment, the actions were movements of a robot arm in 3D space and carried no specific meaning. In another experiment, the actions involved the manipulation of different blocks on a surface. Hereby intentional behaviour was introduced, that is, the actions carried out by an agent were a means to achieve a goal (a particular set of properties of the configuration of the blocks) rather then just movement by themselves. Now the imitation of a series of actions was only considered successful by an agent if it achieved the same goal. In both experiments it was shown that the agents could indeed establish a shared repertoire of actions.

Bart Jansen concluded with pointing out that imitation games can be used in all kinds of domains. Moreover, it provides an elegant criterion for evaluating an imitation: whether or not the demonstrator recognizes the imitation of its action by another agent as the original action he performed.

Report on the Third European Workshop on Multi-Agent Systems

Katja Verbeeck
COMO VUB
Brussels, Belgium

On December, 7th and 8th the third edition of the European Workshop for MAS took place at the Royal Flemish Academy for Sciences and Arts in Brussels, Belgium. As you may remember, this historical location was also the scene for the previous BNAIC conference. Not surprisingly, since part of the organizing team of BNAIC was also involved in this year's local organization of EUMAS 2005, i.e., Karl Tuyls from the Institute for Knowledge and Agent Technology (IKAT) at the University of Maastricht and Ann Nowe and myself, Katja Verbeeck from the Computational Modelling Lab from the Vrije Universiteit Brussel.

The workshop was officially opened by this year's program chair, Marie-Pierre Gleizes from the Institut de Recherce en Informatique de Toulouse. Co-chairs were Gal Kaminka from Bar Ilan University, Israël and Sascha Ossowski from the Universidad Rey Juan Carlos, Madrid, Spain. First some facts and figures of this year's edition were reported. A total of 91 papers were submitted from 18 different countries; 64 of them were accepted. As EUMAS is in the first place a forum to encourage and support activity in the research and development of multi-agent systems in academic and industrial European efforts, both new contributions as well as recent work already published elsewhere, is welcomed. This year a total of 41 new contributions were accepted.

To encourage discussions and interactions between participants a new format for the technical sessions was proposed. Authors were given 15 minutes to present their work, the rest of the sessions was spend on group discussions, carefully prepared by the session chairs by means of open issues and questions which were known beforehand and added to the program.

Two invited speakers were scheduled during the first day. First speaker was Sandip Sen from the University of Tulsa. In his talk, entitled "Sustainable Agent Communities", he summarized some of his research results on trust-based computing, negotiation, collaboration and learning. The common underlying theme of this work is how we can enable intelligent agents to develop and sustain vibrant, successful agent communities.
The second speaker, Han La Poutre, (no need for an introduction here) was scheduled at the end of the first day. Han talked about Action-Reaction in Multi-agent Games. The motivation for his talk comes from the important change of paradigm of ICT in society that is currently taking place. Many independent non-cooperating parties that are connected by distributed networks interact continuously in a dynamic and ad hoc way. As Han explained, the terms for these interactions are set via negotiations and auctions, and the form of adhoc cooperation can be determined for each individual occasion. Recent results include for instance the design of adaptive agents in the application fields of distributed logistics (distributed transportation logistics, distributed patient logistics) and of e-commerce (sales of information services and pricing mechanisms).

Next to the invited talks, 16 technical sessions were scheduled with agents' topics including Self-organisation, Communication, Coordination, Protocols, Auctions, Web Services, Mobility, and Languages.

The new format with more time for discussions seemed to be appreciated by many of the participants. And discussions were continued during a nice historic tour through Brussels city, guided by Bram Van Schoenwinkel, a local PhD student from COMO. For the occasion Brussels had been immersed in a warm Christmas atmosphere.

During the conference dinner, important announcements were made for the future of EUMAS by Michal Pechoucek, head of the EUMAS Advisory Board.

First of all, a new head of the board was announced, i.e., Wiebe van der Hoek from the University of Liverpool. And the location of next year's edition was decided to be Lisbon, Portugal.

After 2 days of agent research discussions a typical Belgian Beer Reception seemed to be an ideal closing of this year's EUMAS edition. Prosit! And hope to see you next year in Lisbon with more agents!

AI Genealogy project

Frank van Harmelen
Vrije Universiteit Amsterdam
The Netherlands

Following the success and impact of the athematics Genealogy Project http://www.genealogy.ams.org/), Ben Kuipers of the University of Texas at Austin now has an NSF sponsored AI Genealogy Project: building a family tree of "who supervised who" in AI.

The database is still small, with information on just over 600 Ph.D. recipients. You can search the AIG database and submit new data via a web form but the results will be moderated before being entered into the database. One goal is to have the genealogy in good shape by summer 2006

Ben Kuipers said:
"The field of AI will mark its 50th anniversary in the summer of 2006, with another workshop at Dartmouth, and with a commemoration at the National Conference on Artificial Intelligence in Boston. Having the academic genealogy of AI ready for those events will be symbolically valuable for the field."

At the time of writing, there were 0 (zero, null, nil, no) entries on AI researchers from The Netherlands. I warmly encourage *all* AI researchers to enter their data into the AI Genealogy Project database. It's a matter of simply filling in a simple form.

Source:
http://ebiquity.umbc.edu/blogger/2006/02/20/499/

Impression on CGAMES'2005

Sander Bakkes
MICC-IKAT / Universiteit Maastricht
The Netherlands

Disregarding people's expectations for the 7th international conference on Computer Games, the invited speaker that opened the conference surprised many. Professor Adrian David Cheock from the National Singapore University enthusiastically revealed his research on 'Human-Computer-Pet interaction'. Cheock expressed his vision of transferring the human physical body petting through the internet to a pet. The research laboratory that Cheock chairs developed a system involving robot chickens and real chickens that wear a jacket equipped with sensors and vibrators. The researchers claim that when the system is in effect, people and poultry will get to know each other better. This is considered useful because "there is a tradition of keeping poultry as pets in some parts of the world. However in modern cities and societies it is often difficult to maintain contact with pets, particularly for office workers. We propose and describe a novel cybernetics system to use mobile and Internet technology to improve human-to-pet interaction."
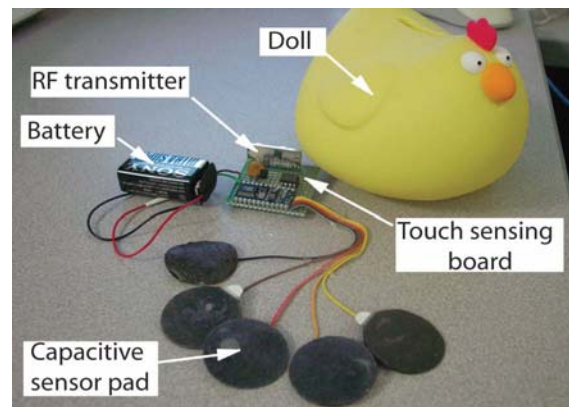
Poultry Internet. The chicken doll and its electronic devices: touch-sensing board with battery and capacitive sensing-pads.

Though it is refreshing to learn about research with a strong ideal-driven angle, the research (and the results that can be expected) seems to be rather frivolous. For many outside of the research community, computer game research often seems frivolous too. Thus perhaps the conference opening was appropriately selected. Not in the least because, in the personal opinion of the author, the CGAMES'2005 conference provided a platform for mostly mediocre research. Several papers that lacked in quality, structure and scientific contribution were accepted nevertheless. One of these even won the so-called 'Best student-paper' award.

Is the CGAMES therefore a conference that a professional researcher should take little notice of? To that question we can give a negative answer. Local organiser Stéphane Natkin worked hard to put together a broad and worthwhile social programme. An interesting link to computer games was the ENJMIN School for Games and Interactive Digital Media, which was formally inaugurated during the conference. Additionally, till late in the evening Chris Crawford, internationally renowned game-designer, discussed novel approaches to current computer games. Crawford's sparkling personality made for an inspiring evening. Also, the winning games and animations of the e-magiciens student-design contest were presented. Activities like these made for a very interesting programme that brought together numerous researchers from a wide variety of disciplines. It was here, during these 'extra' activities, that researchers obtained ideas and mutually inspired each other. Therefore I have no doubt that should the CGAMES-organisation manage to attract more research of academic-level, it will become an event that many researchers as well as game enthusiasts will not forget to note in their agenda.

Marta Sabou, Ph.D. student at VU, is selected as one of world-wide top 10 young AI researchers.

Frank van Harmelen
Vrije Universiteit Amsterdam
The Netherlands

All of you will be familiar with the IEEE Intelligent Systems Magazine, the bimonthly publication of the IEEE Computer Society. A new initiative of this magazine is the yearly election of the "IEEE Intelligent Systems 10 to Watch": ten young top researchers in AI who received their Ph.D. in the past few years.

These ten young "hot shots" are first nominated by leading AI researchers from all over the world, resulting in some 50 nominations. The top 10 is then selected from these 50 by the senior members of the IEEE Intelligent Systems Advisory board.

It is with great pride that I can announce that Marta Sabou, a Ph.D. student at the Vrije Universiteit in Amsterdam has been elected as one of this year's "Ten to Watch". This is not only a great honour for Marta, but also for the Knowledge Representation Group at the VU where she did her Ph.D. studies, and indeed a nice feather in the cap of the Dutch AI community. Of the 10 elected young rising stars, 6

are from the USA and 4 from Europe (2x UK, 1x Germany, and Marta from The Netherlands).

Marta Sabou

After her undergraduate degree in Romania, Marta came to to the VU in Amsterdam to do her Master degree (already on a Semantic Web topic: ontology visualisation), and she decided to stay at the Knowledge Representation Group at the VU to do her Ph.D. thesis.

Marta's Ph.D. is concerned with a typical Semantic Web topic. The current Web is rapidly changing from a web of static pages to a web of dynamic web-services: currency convertors, search engines, dictionaries, travel agencies, on-line shops are all providers of web-services. If we want to design computer support to find and combine such services, we will need computer-processable descriptions of the functionality of these services.

In her thesis, Marta studies proposed formats for describing the semantics of web-services, and makes a number of important recommendations for the improvement of these formats (recommendations which have been taken into account when turning these formats into submissions to the World Wide Web Consortium W3C). She also shows that such semantic descriptions can in fact be semi-automatically acquired from sources that are typically available for web-services (documentation of the service, documentation of the underlying API's, etc). She accomplishes this feat using a variety of techniques from natural language analysis, machine learning and knowledge representation. She empirically shows the feasibility of all this on a corpus of web-services that are in every day use in bio-informatics research.

Marta's thesis work has resulted in a number of publications in very selective conferences (WWW conference, International Semantic Web Conferences) and the Journal of Web Semantics.

After completing her Ph.D. at the VU (her defense will be in April), Marta has accepted a position as research fellow at the Open University in Great

Brittain. More information on Marta can be found at http://kmi.open.ac.uk/people/marta/.

The upcoming May/June issue of IEEE Intelligent Systems will be devoted to portraits of the rapidly rising stars of these young AI researchers. More information is already available at the home page of IEEE Intelligent Systems: http://www.computer.org /portal/site/intelligent/.

Mastering the Game:
A History of Computer Chess at the Computer History Museum, Mountain View.

David Levy
London, UK

On September 10th the world's first permanent museum exhibition on Computer Chess opened at the Computer History Museum in Mountain View, in the heart of California's *Silicon Valley*. The museum and its goals are well described on the museum's web site: *www.computerhistory.org* .

As a celebration of their new exhibit, and to mark its formal opening, the museum organised and hosted a panel discussion on the history of Computer Chess on the evening of September 8th. The panellists combined the more general field of Artificial Intelligence with its microcosm, Computer Chess. Representing Al were Professors Emeritus John McCarthy and Edward Feigenbaum of Stanford University; from Computer Chess came Murray Campbell, lead programmer of IBM' s giant killer DEEP BLUE, and myself. My own role on the panel was also to be a representative of the world of human Chess.

It should be recalled that McCarthy secured his own place in Computer Chess history in two distinct ways. The Chess program that he developed with his student Alan Kotok took part in the first ever match between two programs, their victorious opponent being a program developed at the Institute of Theoretical and Experimental Physics in Moscow. And it was McCarthy who, in 1968, started the bet with this author that a computer program would defeat David Levy in a match within ten years.

Our moderator for the evening was Monty Newborn, past President of the ICCA and himself one of the key figures of the history of Computer Chess - it was Monty who organised the world's first Computer Chess tournament in 1970, which

was also the first of the ACM' s long running series of such events.

The celebrations started with a dinner hosted by the Computer History Museum on the evening before the panel discussion, at which the panellists were joined by Ken Thompson, whose outstanding achievements in our field include winning the 1980 World Computer Chess Championship with the BELLE machine, developed in collaboration with Joe Condon. Sitting next to McCarthy at that dinner was an unnervingly stimulating intellectual experience. Despite his 78 years his mind is razor sharp, and whenever I had the temerity to make a statement, his response was, almost inevitably, "Let me give you a counter-example." By the end of that evening I felt as though I had been hauled through a rigorous cross-examination, and was by no means certain that I had "passed".

Back row, l. to r.: Monty Newborn, Dag Spicer (Senior Curator Computer History Museum), David Levy, Ken Thompson. Front row, l. to r.: Murray Campbell, Ed Feigenbaum, John McCarthy.

The panel discussion was a sell-out, despite having been announced in the media only a few days beforehand. There were some 350 spectators, including such illuminaries of the computing world as Donald Knuth and Bill Yeager. Each panellist was invited to make a few opening remarks for about 5 minutes, and then the discussion was thrown open for questions from the audience, which continued until event was brought to a close two hours later. A video recording of the panel session should by now be available on the museum's web site at *www.computerhistory.org*. And I would strongly urge any readers who find themselves in the vicinity of San Francisco to visit the museum, and not only for its Computer Chess exhibit.

The Three Cycle

Jaap van den Herik
MICC-IKAT Maastricht
The Netherlands

Currently, the new system of Bachelors and Masters (Ba/Ma) has been incorporated in all universities of the Netherlands, and if I am well informed, in whole Europe. In some faculties, the latest date for receiving a "doctorandus" title (or "ingenieur") is August 31, 2006. In other faculties no date has been established for the completion of the Drs education. Since both the political and the scientific world understand that "no progress means deterioration", the Vice-Chancellors of the universities and the Ministers of Education of the countries of the European Union have developed a new plan to reform the two cycle (Ba/Ma) into a three cycle (Ba/Ma/Ph.D.).

After the first meeting in Bologna, the Ministers have discussed this topic in Berlin and London during the EU meetings and soon it will be officially implemented. The goal is, of course, to produce more Ph.D. theses. The general background goal is to raise the level of education of the society. This idea leads to a new investigation of the Ba/Ma cycle (usually five years, but in some places four years only).

The idea is as follows. The Ba education takes three years. Then there is a trifurcation: (1) the Ma education that is a direct follower of the Ba education, (2) a specialized Ma education for direct entrance in the society, and (3) a scientific Ma education as preparation of the Ph.D. education. The latter education is now subject of new plans. The second year of the scientific Ma education is envisaged to function as the first year of the Ph.D. trajectory. This implies that the education to the Ph.D. title can now be fulfilled in $3 + 2 + 3 = 8$ years. It is not known yet what consequences this plan has for the NWO requests, where we then will have 3-year Ph.D. educations and 4-year ones in one system.

The current list of announcements is special. (1) A list of twelve at the beginning of the year is a good start for a fruitful production in 2006. (2) Two announcements are from 2005. Yet, we do not correct our overview us given in the December 2005 issue. For Belgium it would be relevant; for Germany (see below) it would be an exception. From both theses we include an abstract (Rohde) and a brief report (by de Vylder). (3) Among the Ph.D. students we see Marta Sabou. She is considered to be "very special" as can be read in the contribution by Frank van Harmelen. (4) In the list

is included a Ph.D. student from RWTH-Aachen (supervisor Professor Johan van Benthem). In the framework of the European Union we might begin to believe that the BNVKI is broadening its scope towards Germany and that a name as DBNVKI may appear in the near future. We wish all Ph.D. students much success in their further career.

Philipp Rohde (December 8, 2005). *On Games and Logics over Dynamically Changing Structures.* RWTH Aachen. Promotores: Prof.dr. W. Thomas and Prof.dr. J. van Benthem.

Bart Jansen (December 23, 2005). *Robot Imitation: the emergence of shared behaviour in a population of agents*. Vrije Universiteit Brussel. Promotor: Prof.dr. L. Steels.

Wojtek Zajdel (January 17, 2006). *Bayesian Visual Surveillance*. Universiteit van Amsterdam. Promotor: Prof.dr. F.C.A. Groen. Co-promotor: Dr.ir. B.J.A. Kröse.

Peter Verbaan (February 1, 2006). *The Computational Complexity of Evolving Systems*. Universiteit Utrecht. Promotores: Prof.dr. J. van Leeuwen and Prof.dr. J. Wiedermann.

Samuil Angelov (February 2, 2006). *Foundations of B2B Electronic Contracting*. TU Eindhoven. Promotores: Prof.dr.ir. P. W.P.J. Grefen and Prof. dr.ir. J.A. La Poutré.

Paul Withagen (February 3, 2006). *Object Detection and Segmentation for Visual Surveillance*. Universiteit van Amsterdam. Promotor: Prof.dr. F.C.A. Groen. Co-promotor: K. Schutte.

Cristina Chisalita (March 14, 2006). *Contextual issues in the design and use of information technology in organizations*. Vrije Universiteit Amsterdam. Promotores: Prof.dr. G. van der Veer and Prof.dr. J.C. van Vliet.

Eelco Herder (April 13, 2006). *Forward, Back and Home Again: Analyzing User Behavior on the Web*. Unviersiteit Twente. Promotor: Prof.dr.ir. A.Nijholt. Assistent-promotor: Dr. E.M.A.G. van Dijk.

Noor Christoph (April 21, 2006). *The role of metacognitive skills in learning to solve problems*. Universiteit van Amsterdam. Promotor: Prof.dr. B.J. Wielinga. Co-promotor: Dr. J. Sandberg.

Marta Sabou (April 27, 2006). *Building Web Service Ontologies.* Vrije Universiteit Amsterdam. Promotores: Prof.dr. F.A.H. van Harmelen and Prof.dr. H. Stuckenschmidt.

Cees Pierik (May 3, 2006). *Validation Techniques for Object-Oriented Proof Outlines.* Universiteit Utrecht. Promotor: Prof.dr. J.-J.Ch. Meyer. Co-promotor: Dr. F.S. de Boer.

Ziv Baida (May 29, 2006). *Software-aided Service Bundling – Intelligent Methods & Tools for Graphical Service Modeling.* Vrije Universiteit Amsterdam. Promotor: Prof.dr. J.M. Akkermans. Co-promotor: Dr. J. Gordijn.

**Section Editor
Richard Starmans**

6th Dutch-Belgian Information Retrieval Workshop (DIR'06)

Date: March 13-14, 2006
Location: TNO ICT in Delft, The Netherlands.
Website:
http://hmi.ewi.utwente.nl/conference/dir2006

The primary aim of the DIR workshops is to provide an international meeting place where researchers from the domain of information retrieval and related disciplines, can exchange information and present new research developments. This year, there is a special interest in contributions focusing on domain-specific retrieval tasks.

Workshop Programme
Monday March 13

12:00 - 13:15 Registration, coffee, sandwiches

13:15 - 14:15 Keynote session I

Cheng Xiang Zhai (University of Illinois, Urbana-Champaign) "Opportunities and Challenges in Applying IR Techniques to Bioinformatics"

14:15 - 14:30 Coffee break

14:0 – 15:30 Paper session I:

- Leif Azzopardi, Maarten de Rijke (UvA)
  "Query Intention Acquisition: A Case Study on Automatically Inferring Structured Queries"

- R. Dekker, E.H. Dürr, K. van de Meer et al. (TuDelft/UU)
  Archival metadata for durable data sets

16:00 - 16:15 Tea break

16.15 - 16.30 Annonce by Willem van Hagen: New ontology benchmark activity

16:30 - 18:00 Paper session II

- Anni Järvelin, Sanna Kumpulainen, Ari Pirkola, Eero Sormunen (Univ. of Tampere)
  "Dictionary-independent translation in CLIR between closely related languages"

- Fotis Lazarinis (Techn. Educ. Institute of Mesolonghi,GR)
  "Automatic Extraction of Knowledge from Greek Web Documents"

- Gijs Geleijnse, Jan Korst, Verus Pronk (Philips Research)
  "Google-based Information Extraction. Finding John Lennon and Being John Malkovich"

Evening: Sponsored Dinner in Delft (details will follow soon)

Tuesday March 14

8:45 - 9:15 Registration, and coffee

9:15 - 10.15 Keynote session II

Maarten de Rijke (UvA)
"Question Answering in IMIX" (provisional title)

10.15 - 10.30 Coffee break

10.30 - 11:30 Paper session III

- Toine Bogers, Antal van den Bosch (UvT)
  "Authoritative ReRanking in Fusing"
  "AuthorshipBased Subcollection Search Results"

- Claudia Hauff (UT)
  "Utilizing scale-free networks to support the search for scientific publications"

- Vera Hollink, Maarten van Someren (UvA)
  "Optimal link categorization for minimal retrieval effort"

- Börkur Sigurbjörnsson, Jaap Kamps, Maarten de Rijke (UvA)
  "Focused Access to Wikipedia"

12.30 Closing

Registration details
The fee for the Workshop is 50 euros, to be paid in cash, on-site. This includes workshop proceedings, refreshments and a reduced price conference dinner. For a fixed number of SIKS-students the workshop is free of charge. (Applications will be honoured in a first come - first serve manner.) Participants are requested to register for the workshop before Tuesday, March 6, 2006. To register you just send an e-mail to dir2006@ewi.utwente.nl, with as subject: DIR2006 registration, or -if applicable- DIR2006 registration SIKS.

SIKS Masterclass on Human-Computer Interaction

"Technology in Work Environments - what might work and why not"

Date: Wednesday March 15, 2006
Location: Vrije Universiteit, De Boelelaan 1081 A , 1081 HV Amsterdam, Room A1.03 (Entrance 1085: no access-card required !)

Provisionary Program
10:30 Gerrit C. van der Veer (Vrije Universiteit, Amsterdam)
"Welcome, Introduction to the theme"

11:00 Alan Dix (Computing Department Lancaster University, UK)
"Appropriate intelligence on the desktop and the web"

12:30 Lunch

13:30 Cristina Chisalita (Vrije Universiteit, Amsterdam)
"Organisational culture vs. system design and use - on barriers and opportunities"

15:00 Ellen Christiansen (Institute for Communication Aalborg University, Denmark)
"Blogging - a technology for integrating personal networks in the corporate culture?"

16.30 Final considerations /end of the masterclass

Registration
Participation (lunch included) is free for all SIKS-members, but an early registration is required.

To register, please send an e-mail to office@siks.nl and inform Mrs. Corine Wesselman whether you will take the lunch and about dietary needs.

Monthly Agent Colloquium

Agent technology is currently one of the most important research themes in the field of information and knowledge systems. Most Agent-researchers in the Netherand participate in SIKS. In cooperation with UU, TUD and CWI a monthly research colloquium is organized,that alternately takes place in Amsterdam, Delft and Utrecht. The next meeting will be on March 23 in Delft. For more details and an overview on upcoming events, check the SIKS-site.

Advanced SIKS-Course: Computational Intelligence

Introduction
On April 3 and 4 2006 the School for Information and Knowledge Systems (SIKS) and members of the AI4IA-project will organize an advanced course on Computational Intelligence. The course takes two days, will be given in English and is part of the so called Advanced Components Stage of the Educational Program for SIKS-Ph.D. Students. Although these courses are primarily intended for SIKS-Ph.D. Students, other participants are not excluded. However, their number of passes will be restricted and depends on the number of students taking the course. The course is given by experienced lecturers actively involved in the research areas related to the topics of the course.

Location: Conference center Landgoed Huize Bergen in Vught (http://www. Huizebergen.nl)

Course Director: Dr. Tom Heskes (RUN)

Program (provisional)
Monday April 3, 2006

09.50 - 10.00 Welcome, Tom Heskes (RUN)

10.00 - 11.30 Neural Networks, Michiel van Wezel (EUR)

11.30 - 12.00 Break

12.00 - 13.30 Machine Learning, Maarten van Someren (UVA)

13.30 - 14.30 Lunch
14.30 - 16.00 Expert Systems, Peter Lucas (RUN)

16.00 - 16.30 Break

16.30 - 18.00 Feature Extraction, Nikos Vlassis (UVA)

Tuesday April 4, 2006

09.30 - 11.00 Time Series Analysis, Michel Verhaegen (TUD)

11.00 - 11.30 Break

11.30 - 13.00 Bayesian Networks, Wim Wiegerinck (RUN)

13.00 - 14.00 Lunch

14.00 - 15.30 Genetic Algorithms, Edwin de Jong (UU)

15.30 - 16.00 Break

16.00 - 17.30 Fuzzy Logic, Uzay Kaymak (EUR)

Registration

There are two possible arrangements:
Arrangement 1: one stay in a single room, breakfast, two lunches, dinner, and course material included.
Arrangement 2: same arrangement, but without bed and breakfast.
For registration you are kindly requested to fill in the registration form:
http://www.siks.nl/act/inschrijving_CI_tom.html

In the conference center there is a limited number of places and there is interest from other groups in the topic as well. Therefore, an early registration is required.

Perceptual Cognition Workshop in Maastricht

Date: April 20, 2006
Location: Universiteit Maastricht, Bouillonstraat 3, in the "Feestzaal"

The Perceptual Cognition Workshop aims to offer an overview of current visions and research questions on Active Vision. Researchers with different backgrounds (cognitive neuroscience, artificial intelligence, embodied cognitive science) present their work and discuss important new research directions. The workshop fits into the Advanced Components stage of SIKS' educational program for Ph.D.-students. Therefore, they are strongly encouraged to participate.

Program

09:30 Opening by Eric Postma (Universiteit Maastricht, Chair)

10:00 "On Embodied Models of Cognition" by Dana Ballard (University of Rochester)

11:00 Coffee break

11:20 "Attention and Performance in Active Vision" by Lucas Paletta (Joanneum Research)

12:00 "Motion Invariants as the Basis of Vision and Visually Guided Action" by Wim van de Grind (Universiteit Utrecht)

12:40 Lunch

14:00 "Solutions to the Perception / Action Cycle in Computer Vision" by Joachim Denzler (Universität Jena)

14:40 "Evolutionary and Information Theoretic Active Vision" by Guido de Croon (Universiteit Maastricht)

15:20 Coffee break

15:40 "Co-development of Active Vision and Receptive Fields in Behavioral Systems" by Dario Floreano (EPFL, Lausanne)

16:20 Discussion

17:00 Closing by Eric Postma

Registration

Participation (lunch included) is free for all SIKS-members, but an early registration is required.
Please, register at: http://www.cs.unimaas.nl/pcw

Masterclass on "Knowledge Management and Conceptual Modeling"

On May 30 2006 at the Vrije Universiteit in Amsterdam a SIKS-masterclass on Knowledge management and conceptual modeling takes place. A full program is not available yet but John Mylopoulos and Yves Pigneur have agreed to lecture at the masterclass. Chair: prof.dr. J.M. Akkermans (VU) Participation and lunch are free for all SIKS-members, but an early registration is required. For more details check the SIKS-site.

Basic Courses: "System Modelling" and "Knowledge Modelling"

Introduction
From May 29 till June 2, 2006, the School for Information and Knowledge Systems (SIKS) organizes two basic courses: "System modelling" and "Knowledge modelling".The location will be Landgoed Huize Bergen in Vught (http://www.Huizebergen.nl).

Both courses will be given in English and are part of the Basic Course Program for SIKS-Ph.D. students. Although these courses are primarily intended for SIKS-Ph.D. students, other participants are not excluded. However, their number of passes will be restricted and depends on the number of SIKS-Ph.D. students taking the course.

Course Directors
Dr. Pascal van Eck (UT), dr. Willem-Jan van den Heuvel (UvT) "System modeling"

Dr. Bert Bredeweg (UVA) "Knowledge modeling"

Program
A provisionary program will be made available in due course.

AI EDUCATION

Section Editor
Evert van de Vrie
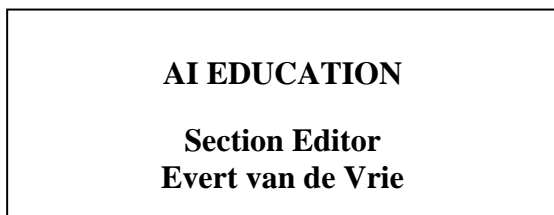
BaMaS: Bachelor Master Connections Site

Evert van de Vrie
Open Universiteit Nederland
Heerlen, The Netherlands

BaMaS (www.bamas.nl) is the on line information system on the links and connection programmes between bachelor and master programmes. Following a bachelor programme at a university a student can continue his education in a related master programme, at his own or at another university. However, after completion of a bachelor programme at a polytechnic, he can continue his studies with a master programme at either a polytechnic or more often at a university instead.

To be admitted to a university master in some cases there are no extra obligations apart from completing the bachelor programme, but in other cases a student may well have to complete one or more connection courses. In case he wishes to proceed to a less-related master programme, a full connection programme may be required.

In BaMaS all information on links and connection programmes is accumulated and presented. For each bachelor programme one can thus check, which master programmes can be entered without any further obligations, or for which master programmes completion of a connection programme is required. It is also possible to select a master programme and check which bachelor programmes will allow to start with that specific master, with or without a connection programme.

Apart from information on the links or connection programmes BaMaS also offers limited information on the bachelor and master programmes themselves. For extended information one is directed to information sites of the respective institutions.

The information on programmes and their links is inserted by the institutions themselves, and is a recent as possible. Information is available in Dutch and in English.
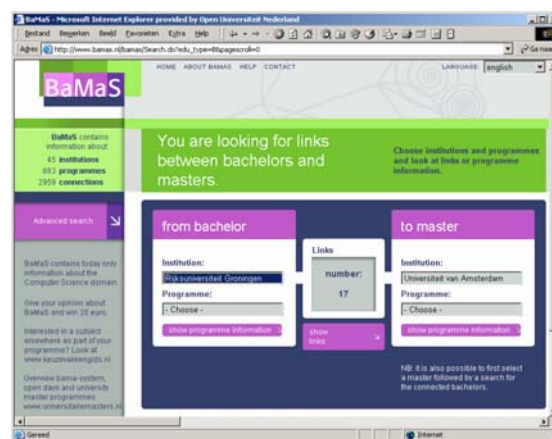
The initiative for the development of BaMaS was taken by the "Digital University" (www.du.nl). Today more than 30 institutions are participating in BaMaS. From the 240 bachelor and master programmes in Computer Science and Artificial Intelligence offered in the Netherlands, almost 75 % is participating in BaMaS. In 2006 all other domains will be incorporated so that ultimately all bachelor and master programmes in the Netherlands are presented in BaMaS.

Since bachelor and master programmes are not limited to the Netherlands, but exist in all of Europe, and one of the reasons for introducing the bachelor-master system in Europe was to enhance the opportunities for continuing studies after a bachelor with a master in another institution or even country, the long-term perspective of BaMaS is definitely European.

More information about the BaMaS-initiative can be found on www.bamas.nl/community (in Dutch). A test environment is available for those willing to do some experiments with BaMaS.

Institutions intending to participate in BaMaS and publish information on programmes and connections are asked to send a mail to bamas.beheer@ou.nl after which they will receive information on options and obligations.

ANNOUNCEMENTS

Spring School

March 10-17, 2006
Günne at Lake Möhne, Germany

The Interdisciplinary College ("Interdisziplinäres Kolleg", IK) offers an interdisciplinary non-profit course (spring school) on artificial intelligence.

Focus theme: Learning

The focus of next year's IK will be learning. What is learning? As long as nobody asks, we know the answer. Neuroscientists refer to synaptic change, educators to insight, developmental psychologists to phases and stages, cognitive psychologists to categories and rules, modellers and computer scientists to statistics and data-driven inferences. Learning is surely one of the most intensely studied subjects in neurobiology, cognitive science, artificial intelligence, and neuroinformatics. As in previous IK, we want to tackle the theme at issue from various viewpoints, from the synapse to systems, from animals to algorithms, from organisms to automata, and from theory to practical applications.

Developmental aspects (the borderland between maturation and learning), modifying factors (age, emotion, motivation), storage systems (memory in its various forms) will be discussed as well as computational learning theories.

The IK will aim in particular at bridging the gap between disciplines. Thus we will discuss how computational approaches such as reinforcement learning are related to neurobiological and cognitive insights. This multidisciplinary approach can help to establish new learning paradigms and algorithms for artificial cognitive systems and facilitate our understanding of the nature of learning.

The key note speaker of last BNAIC, Luc Steels, will be one of the 24 lecturers.

Audience: Students, postgraduates and researchers from academia and industry.
Organisers: The Interdisciplinary College (IK)
Date: March 10-17, 2006, Günne at Lake Möhne, Germany

Further information and registration:
http://www.ik2006.de/ik06/

EU Spam Symposium 2006

June 15, 2006
Maastricht, The Netherlands

On 15 June 2006 the EU Spam Symposium 2006 will take place at the FE&BA at the Universiteit Maastricht, The Netherlands. This symposium is an initiative of the recently graduated international business bachelor students Dreas van Donselaar and Sam Renkema.

The purpose of the symposium is to inform individuals and businesses on the latest spam issues and their effects on business, politics, and jurisdiction. Spammers develop new intelligent tricks to counter antispam measures, resulting in a hard to combat problem. An ex-spammer will reveal information about the real people behind the spam issues and different individuals will show their developed intelligent technologies to counter the issue.

The target audiences are businesses, policy makers and students.
The symposium will take place at Tongersestraat 53. More information is available at the website: www.euspamsymposium.org.

Summer School

June 19-22, 2006
Heeze, The Netherlands

The committee for the NWO research programme Computational Life Sciences is pleased to announce its summer school:

Space, time and the organization of life
A hands-on summer school
for computational life sciences

Many properties of entire living systems, ranging from simple unicellular organisms to humans, can

be measured, more and more quantitatively. Advanced computational techniques are required to understand both the functioning of single macromolecules and the emergence of cell, organism and ecosystem function from their interactions.

New computational methods for inhomogeneous space and time on the one hand, and the new biology that structures its own space and time on the other hand, will be the two intertwined topics of this summer school. By discussing the two side by side, it is hoped that the participants will begin to view and even generate new computational life sciences that deal optimally with space, time and the organization of Life.

Audience: Ph.D. students and postdocs
Organisers: NWO programme committee Computational Life Sciences
Date: June 19-22, 2006, Heeze, the Netherlands

Further information and registration:
http://www.cls.nl or contact the programme officer, ir.drs. M. de Boer, email: boerm@nwo.nl, +31 (0)70 3440812. Registration will be possible from early February 2006. The number of participants is limited (max. 50).

Summer School

August 14-16, 2006
Ottowa, Canada

Mathematics of Information Technology and Complex Systems sponsors the summer school:

Wireless Sensor Networks

Processors, sensors, and wireless radios are becoming extremely small and inexpensive. We therefore foresee a world where many everyday objects and physical environments are enriched by computational power. Wireless sensor networks are a relatively recent and exciting example of networked embedded sensing systems and significant research projects in this area are under way throughout the world. The area provides a rich field of research challenges and possibilities for technology transfer (for example, RFID sensors and supply chain management, smart homes/cities, health care, etc.).

The goal of the summer school is to provide a basic survey of the most relevant subfields, to present the perspectives and the underlying technologies, as well as to identify important research themes.

Furthermore, the school will provide the opportunity to get to know other people working in the field, to meet other graduate students and to interact with distinguished scholars. We hope that it will lead to the establishment of contacts that may result in future research collaborations as well.

Audience: Postgraduate students from Canadian universities, young researchers from universities and industrial labatories around the world, senior undergraduate students with a strong interest in sensor networks.
Organisers: Carleton University, Canada.
Date: August 14-16, 2006, Ottowa, Canada

Further information and registration:
http://kunz-pc.sce.carleton.ca/AdHocNow2006/ sensors.html or contact Thomas Kunz, Associate Professor, Carleton University, email: tkunz@.sce.carleton.ca. The number of participants is limited (max. 50).

Call for Papers

FAMAS 2006

August 28, 2006
Riva del Garda, Italy

In recent years, multi-agent systems have come to form one of the key technologies for software development. The second edition of the Formal Approaches to Multi-Agent Systems (FAMAS) workshop series, after a success of FAMAS'03 affiliated to ETAPS'03 in Warsaw, aims at bringing together researchers from the fields of logic, theoretical computer science and multi-agent systems in order to discuss formal techniques for specifying and verifying multi-agent systems. Suggested, but not exclusive, topics of interest for the workshop are:

- (Modal) Logics for Multi-agent Systems
- Formal Methods for Verification of Multi-agent Systems, e.g. Model Checking
- Formal Approaches to Cooperation and Multi-agent Planning
- Formal Approaches to Communication Coordination and Negotiation
- Formal Analysis of Games
- Reasoning with Uncertainty in a Distributed Environment
- Approximate Reasoning

Submission
Submissions should be written in English, unpublished, and not simultaneously submitted for

publication elsewhere. Papers should be formatted according to the Springer LNCS style and not exceed 15 pages. (See the Springer LNCS homepage:
http://www.springer.de/comp/lncs/authors.html
Please send your paper in Portable Document Format (PDF) to both rineke@ai.rug.nl and keplicz@mimuw.edu.pl.

After the workshop the best papers will be selected for publishing in a Special Issue of Fundamenta Informaticae in 2007.

Important dates

Submission of papers	April 15, 2006
Notification of acceptance	May 10, 2006
Camera-ready copies due	May 24, 2006
FAMAS Workshop	August 28, 2006

Proceedings

Informal workshop proceedings will be available at the workshop. Authors of selected papers will be invited to submit an extended version of approximately 20 to 30 pages for a special issue of Fundamenta Informaticae devoted to "Formal Approaches to Multi-agent Systems". Further details will be announced at FAMAS'06.

Program Committee

Chairs: Barbara Dunin-Keplicz (Warsaw University and Polish Academy of Sciences, Poland) and Rineke Verbrugge (University of Groningen, The Netherlands).

Workshop Organizers

Barbara Dunin-Keplicz - keplicz@mimuw.edu.pl
Institute of Informatics, Warsaw University and Institute of Computer Science, Polish Academy of Sciences http://www.mimuw.edu.pl/~keplicz/

Rineke Verbrugge - rineke@ai.rug.nl
Institute of Artificial Intelligence, University of Groningen http://www.ai.rug.nl/~rineke

Call for Papers

BNAIC 2006

October 5-6, 2006
University of Namur, Belgium

The BNAIC 2006 venue will be held in the University of Namur under the auspices of the Belgian-Dutch Association for Artificial Intelligence (BNVKI) and the Dutch research school for Information and Knowledge Systems (SIKS). The conference aims at presenting an overview of state-of-the art research in artificial intelligence in Belgium and The Netherlands.

Topics

Possible topics of submissions include:
- Multi-Agent Systems
- Intelligent Agents
- Robotics
- Logic in AI
- Games
- Search
- Verification and Validation
- Logic Programming
- Knowledge-based Systems
- Knowledge Representation
- knowledge management
- Ontologies
- Machine Learning
- Optimisation
- Evolutionary Algorithms
- Neural Networks
- Knowledge Discovery and Data Mining
- Natural Language Processing
- Cognitive Modeling
- Speech Recognition
- Handwriting Recognition
- Applications
- AI in Law, Music & Art
- Other

Submission

Submissions of the following three types are invited:
Type A: Regular Papers
Papers presenting new original work. Submitted papers should not exceed a length of 8 pages. These papers will be reviewed on overall quality and relevance. A-Papers will be accepted for either oral or poster presentation. Accepted papers will be fully published in the proceedings.
Type B: Compressed Contributions
AI papers that have been accepted after June 1st, 2005 at other refereed conferences or journals can be resubmitted and will be accepted as compressed contributions. Authors are invited to submit the officially published version (without page restriction) together with a one or two-page abstract. B-Papers will be accepted for either oral or poster presentation. The abstract of the paper will be published in the proceedings. Every author may submit at most 1 B-paper of which they are the corresponding author, and only if they do not submit any A-paper as corresponding author. Note that a separate author registration is required for each B-type contribution.
Type C: Demonstrations and Applications
Proposals for demonstrations will be evaluated based on submitted demonstration summaries (in

English) stating the following: the purpose of the system to be demonstrated, its user groups, the organisation or project for which it is developed, the developers, and the technology used. In addition, the system requirements and the duration (not exceeding 30 minutes) should be mentioned. Researchers from industry are especially encouraged to submit papers presenting their applications and experiences. The maximum size of demonstration summaries is 2 pages.

Papers and demonstration summaries should be submitted electronically. More details can be found at the BNAIC 2006 site: www.BNAIC2006.be.
Submissions should be accompanied by a message stating the submission type (A, B, or C) and an abstract of the paper in plain text. Proper receipt of submissions will be acknowledged by e-mail. The deadline for submissions is June 1st, 2006. Submission implies willingness of at least one author to register for BNAIC and present the paper. For each paper, a separate author registration is required. Authors keep the copyright of their submissions. The BNAIC Proceedings are published under ISSN series number 1568-7805.

Important dates

Deadline for submissions	June 1, 2006
Notification of acceptance	July 7, 2006
Deadline for camera-ready papers	September 7, 2006

Call for Participation

Summer Course on Data Mining

July 3-7, 2006
Maastricht, The Netherlands

Introduction
Data mining is a relatively new scientific field that enables finding interesting knowledge (patterns, models and relationships) in very large databases. It is the most essential part of the knowledge-discovery process and has the potential to predict events or to analyse them in retrospect. Data mining has elements of databases, statistics, artificial intelligence, and machine learning.

Why Data Mining
A typical database contains data, information or even knowledge if the appropriate queries are submitted and answered. The situation changes if you have to analyse large databases with many variables. Elementary database queries and standard statistical analysis are not sufficient to answer your information need. Your intuition guides you to understand that the database contains more knowledge on a specific topic that you would like to know explicitly. Data mining can assist you in discovering this knowledge. The course shows you within five days how this works. You will learn new techniques, new methods, and tools of data mining. Hands-on education is involved.

Course Description
The course focuses on techniques with a direct practical use. A step-by-step introduction to powerful (freeware) data-mining tools will enable you to achieve specific skills, autonomy and hands-on experience. A number of real data sets will be analysed and discussed. In the end of the course you will have your own ability to apply data-mining techniques for research purposes and business purposes.

Course Content
- The Knowledge Discovery Process
- Preparing Data for Mining
- Basic Techniques for Data Mining
    - Decision-Tree Induction
    - Rule Induction
    - Instance-Based Learning
    - Neural Networks
    - Bayesian Learning
    - Support Vector Machines
    - Ensemble Techniques
    - Clustering
    - Association Rules
- Tools for Data Mining
- How to Interpret and Evaluate Data Mining Results

Intended Audience
This course is intended for four groups of data-mining beginners: students, scientists, engineers and experts in specific fields who need to apply data-mining techniques to their scientific research, business management, or other related applications.

Participating in this course is a part of the advanced components stage of SIKS' educational program. SIKS has reserved a number of places for those Ph.D-students working on the course topics.

Prerequisites
The course does not require any background in databases, statistics, artificial intelligence, or machine learning. A general background in science is sufficient as is a high degree of enthusiasm for new scientific approaches.

Further information and registration:
http://www.cs.unimaas.nl/datamining/2006/

Perceptual Cognition Workshop

the perceptual cognition workshop aims to offer an overview of current visions and research questions on active vision. researchers with different backgrounds (cognitive neuroscience, artificial intelligence, embodied cognitive science) present their work and discuss important new research directions.

program:

9:30	opening by eric postma (chair, universiteit maastricht)
10:00	"on embodied models of cognition." by dana ballard (university of rochester)
11:00	coffee break
11:20	"attention and performance in active vision." by lucas paletta (joanneum research)
12:00	"motion invariants as the basis of vision and visually guided action." by wim van de grind (universiteit utrecht)
12:40	lunch
14:00	"solutions to the perception / action cycle in computer vision." by joachim denzler (universitat jena)
14:40	"evolutionary and information theoretic active vision." by guido de croon (universiteit maastricht)
15:20	coffee break
15:40	"co-development of active vision and receptive fields in behavioral systems." by dario floreano (epfl lausanne)
16:20	discussion
17:00	closing by eric postma

9:30-17:00, april 20th, 2006, universiteit maastricht, in the "feestzaal", bouillonstraat 3
register at: http://www.cs.unimaas.nl/pcw

NWO Nederlandse Organisatie voor Wetenschappelijk Onderzoek   UM   M!CC   kat   STKS

CONFERENCES, SYMPOSIA WORKSHOPS

Below, the reader finds a list of conferences, symposia and workshops, and websites or addresses for further information.

MARCH 13-14, 2006
6th Dutch-Belgian Information Retrieval Workshop (DIR'06). TNO ICT, Delft, The Nehtherlands.
http://hmi.ewi.utwente.nl/conference/dir2006

MARCH 15, 2006
SIKS Masterclass on Human-Computer Interaction: Technology in Work Environments – what might work and why not. Vrije Universiteit Amsterdam, The Netherlands.
To register, please send an e-mail to office@siks.nl

MARCH 16, 2006
7th Nationaal Sustainability Congres. Ede, The Netherlands.
www.duurzaam-inkopen.nl/congres

MARCH 20-24, 2006
2nd Conference on Interoperability for Enterprise Software and Applications (I-ESA'2006). Bordeaux, France.
http://www.i-esa.org

MARCH 27-28, 2006
The First Pacific Rim International Workshop on Electronic Commerce (PRIWEC'2006). National Center of Sciences Building, Tokyo, Japan.
http://www-toralab.ics.nitech.ac.jp/PRIWEC2006/

APRIL 3-4, 2006
SIKS-course on Computational Intelligence. Vught, The Netherlands.
http://www.siks.nl/act/inschrijving_CI_tom.html

APRIL 3-5, 2006
Conference Multi-scale Modelling: Electrons, Molecules and (Bio)Materials. Trippenhuis, Amsterdam, The Netherlands.
http://www.knaw.nl/cfdata/events/events_detail.cfm?agenda__id=757

APRIL 9-12, 2006
The 10th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD 2006). Singapore.
http://www.ntu.edu.sg/sce/pakdd2006/

APRIL 10-11, 2006
ICT-Kenniscongres 2006. Amsterdam, The Netherlands.
www.ict-kenniscongres.nl

APRIL 20, 2006
Perceptual Cognition Workshop. Universiteit Maastricht, The Netherlands.
http://www.cs.unimaas.nl/pcw

APRIL 20-22, 2006
Sixth SIAM Data Mining Conference. Bethesda, Maryland, USA.
http://www.siam.org/meetings/sdm06/

APRIL 23-26, 2006
Gelato ICE: ItaniumR Conference & Expo 2006. San Jose, CA, USA.
www.gelato.org/meeting

APRIL 24, 2006
Netherlands Bioinformatics Conference. Ede, The Netherlands.
http://www.nbic.nl/conference

MAY 1-7, 2006
Sagasnet Developing Interactive Narrative Content Seminar. Stuttgart, Germany.
http://www.sagasnet.de

MAY 8, 2006
2nd International Workshop on Rational, Robust, and Secure Negotiations in Multi-Agent Systems (RRS'2006). To be held at the AAMAS 2006. Hakodate, Japan.
http://www-toralab.ics.nitech.ac.jp/RRS2006/

MAY 8-11, 2006
International Conference on Computational Science and its Applications (ICCSA'2006). Glasgow, UK.
http://www.iccsa.org/

MAY 8-12, 2006
Fifth International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS'06). Future University, Hakodate, Japan.
http://www.fun.ac.jp/aamas2006/

MAY 10, 2006
Workshop on Knowledge Discovery and Emergent Complexity in BioInformatics (KDECB'2006). Organised in connection with the Fifteenth Belgium-Netherlands Conference on Machine Learning (May 11-12, 2006). Ghent, Belgium.
http://www.biomicc.unimaas.nl/KDECB/

MAY 22-24, 2006
2006 IEEE Symposium on Computational Intelligence and Games (CIG'06). University of Nevada, Reno/Lake Tahoe, USA.
http://www.cse.unr.edu/~sushil/cig06/

MAY 22-26, 2006
15th World Wide Web Conference (WWW'2006). Edinburgh, Scotland.
http://www2006.org

MAY 23, 2006
First International Workshop on Semantic Web Annotations for Multimedia (SWAMM'2006). To be held as part of the 15th World Wide Web Conference (WWW'2006). Edinburgh, Scotland.
http://multimedia.semanticweb.org/SWAMM06/

MAY 28-31, 2006
International Conference on Computational Science (ICCS'2006). Reading, UK.
http://www.iccs-meeting.org/iccs2006/

MAY 26-31, 2006
The Computers and Games Conference 2006 (CG2006). Torino, Italy.
http://www.icga.org

MAY 29 - JUNE 2, 2006
SIKS-course on System Modeling and Knowledge Modeling. Vught, The Netherlands.
http://www.siks.nl

MAY 30 - JUNE 1, 2006
First International Conference on Scalable Information Systems (INFOSCALE). Hong Kong.
http://www.infoscale.org/

JUNE 3, 2006
Workshop on Machine Self-Replication. Indiana University, USA.
http://www.alifex.org/

JUNE 5-6, 2006
Workshop on Development and Deployment of Product Software (DDoPS'06). Luxembourg.
http://www.cs.uu.nl/~xu/conferences/DDoPS06.htm

JUNE 6, 2006
The Second Twente Data Management Workshop (TDM'06) on Uncertainty in Databases. University of Twente, Enschede, The Netherlands.
http://www.cs.utwente.nl/~tdm

JUNE 6, 2006
International Workshop on Web Information Systems Modeling (WISM 2006). Held in conjunction with CAiSE 2006. Luxembourg.
http://wwwis.win.tue.nl/~flaviusf/workshops/wism2006

JUNE 6-7, 2006
Workshop on AI Planning for Computer Games and Synthetic Characters. Lake District, UK.

JUNE 11-12, 2006
Workshop on Semantic Web Personalization. At the 3rd European Semantic Web Conference. Budva, Montenegro.
http://www.kbs.uni-hannover.de/~henze/swp06/

JUNE 11-13, 2006
Workshop on Human Centered Technology. Pori, Finland.
http://amc.pori.tut.fi/hct06

JUNE 13, 2006
2nd International Workshop on Coordination and Organisation (CoOrg 2006). In conjunction with Distributed Computing Techniques (DisCoTec06). Bologna, Italy.
http://boid.info/CoOrg06

JUNE 13-14, 2006
Knowledge Management in Organizations (KMO'2006): New Trends in Knowledge Management. Maribor, Slovenia, Europe.
http://www.cot.si/kmo/

JUNE 14-19, 2006
29th Annual German Conference on Artificial Intelligence. Bremen, Germany.
http://www.ai-conference.de/ki06/

JUNE 15-17, 2006
The 4th biannual FOODSIM conference. University of Naples Federico II, Naples, Italy.
http://biomath.ugent.be/~eurosis/conf/foodsim/foodsim2006/

JUNE 18-21, 2006
Workshop on State-of-the-Art in Scientific and Parallel Computing (PARA'06). Umea, Sweden.
http://www.hpc2n.umu.se/para06/

JUNE 20, 2006
International Workshop on Adaptive Learning and Learning Design (ADALE): Building adaptive educational hypermedia with IMS Learning Design. Dublin, Ireland.
http://www.fit.fraunhofer.de/~kravcik/ADALE.html

JUNE 26, 2006
The 2nd International Workshop on Data Engineering in E-Commerce and Services (DEECS 2006). In conjunction with IEEE Joint Conference on E-Commerce Technology (CEC'06) and Enterprise Computing, E-Commerce and E-services (EEE'06). San Francisco, CA, USA.
http://www.cebt.re.kr/DEEC2006/

JUNE 26-28, 2006
International Workshop on Process Integration of Collaborative Enterprises (PINCET). To be held at the 14th IEEE International Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE-2006). University of Manchester, UK.
http://is.tm.tue.nl/staff/heshuis/pincet/

JUNE 28 – JULY 8, 2006
International e-Conference of Computer Science 2006 (IeCCS'2006). Place of the Conference: Internet.
http://www.ieccs.net/

JULY 3-6, 2006
The 2006 International Wireless Communication and Mobile Computing Conference (IWCM'06). Sheraton Wall Centre, Vancouver, Canada.
http://www.ee.ucl.ac.uk/~yyang/IWCMC/WAHSN.htm

JULY 4-6, 2006
6th International Workshop on Next Generation Information Technologies and Systems (NGITS 2006). Kibbutz Shefayim, Israel.
http://mis.haifa.ac.il/~ngits

JULY 5-7, 2006
International Conference on Organizational Semiotics (ICOS'2006). Campinas, SP., Brazil.
http://www.todosnos.unicamp.br/icos2006/

JULY 6-8, 2006
International Workshop on Intelligent Information Access (IIIA-2006). Marina Congress Center, Helsinki, Finland.
http://cosco.hiit.fi/search/IIIA2006/

JULY 8-12, 2006
Workshop on Adaptive Representations. To be held as part of the 2006 Genetic and Evolutionary Computation Conference (GECCO'2006). Seattle, Washington, USA.
http://homepages.inf.ed.ac.uk/mtoussai/gecco06/index.html

JULY 10, 2006
Workshop on Model-Driven Web Engineering (MDWE 2006). In conjunction with ICWE 2006. Palo Alto, CA, USA.
http://www.lcc.uma.es/~av/mdwe2006/

JULY 13-15, 2006
7th Conference on Logic and the Foundations of Game and Decision Theory. Liverpool, UK.
http://www.csc.liv.ac.uk/~wiebe/LOFT06

JULY 13-15, 2006
Special Session on New Trends in Web Server Architectures within 10th WSEAS International Conferences on Computers. Vouliagmeni, Athens, Greece.
http://www.worldses.org/conferences/2006/greece/iccomp/session6.htm

JULY 14-15, 2006
Industrial Conference on Data Mining (ICDM-Leipzig 2006). Leipzig, Germany.
www.data-mining-forum.de

JULY 16-21, 2006
IEEE World Congress on Computational Intelligence 2006 (WCCI'2006). Vancouver, Canada.
www.wcci2006.org

JULY 24-26, 2006
2006 IEEE Mountain Workshop on Adaptive Learning Systems. Logan, Utah, USA.
http://www.engineering.usu.edu/ece/smcals06

JULY 24-27, 2006
The 8th International Computer Games Conference (CGAMES'2006). Louisville, Kentucky, USA.
http://www.scit.wlv.ac.uk/~cm1822/cgames06usa.htm

AUGUST 1-4, 2006
The First International Conference on Knowledge, Information and Creativity Support Systems (KICSS 2006). Ayutthaya, Thailand.
htttp://come.to/kicss2006/

AUGUST 1-5, 2006
International Conference on Informatics in Control, Automation and Robotics (ICINCO'2006). Setúbal, Portugal.
http://www.icinco.org

AUGUST 5-8, 2006
First International Conference on Knowledge Science, Engineering and Management (KSEM'2006). Guilin City, China.
http://www.cs.ust.hk/ksem06

AUGUST 16-21, 2006
Third International Joint Conference on Automated Reasoning (IJCAR 2006). Seattle, USA.
http://ijcar06.uni-koblenz.de/

AUGUST 17-19, 2006
5th International Conference on Ad hoc Networks and Wireless (AHDHOC-NOW 2006). Co-located with Summer School in Wireless Sensor Networks. Ottawa, Canada.
http://kunz-pc.sce.carleton.ca/AdHocNow2006/

AUGUST 17-20, 2006
22nd International Conference on Logic Programming. Seattle, Washington, USA.
http://www.cs.uky.edu/iclp06/

AUGUST 21-23, 2006
The 6th International Conference on Intelligent Virtual Agents (IVA'06). Marina del Rey, CA, USA.
http://iva2006.ict.usc.edu/

AUGUST 25-26, 2006
Workshop on Intelligent Data Analysis in biomedicine and Pharmacology (IDAMAP'2006). Verona, Italy.
http://idamap.org/idamap2006

AUGUST 27-30, 2006
Workshop on Cultural Heritage in Cooperation with EVA Conferences International. Vienna, Austria.
http://www.eva-vienna.at

AUGUST 28, 2006
Workshop on Formal Approaches to Multi-agent Systems (FAMAS'06). Affiliated with ECAI 2006. Riva del Garda, Italy.
http://www.mimuw.edu.pl/MAS/FAMAS

AUGUST 28 – SEPTEMBER 1, 2006
Second IEEE Communications Society/CreateNet International Conference on Security and Privacy for Emerging Areas in Communication Networks. Baltimore, MD, USA.
http://www.securecomm.org

AUGUST 28 – SEPTEMBER 1, 2006
17th European Conference on Artificial Intelligence (ECAI'06). Riva del Garda, Italy.
http://ecai2006.itc.it/

AUGUST 29, 2006
ECAI'06 Workshop on AI Techniques in Healthcare: Evidence-based Guidelines and Protocols. Riva del Garda, Italy.
http://www.cs.vu.nl/~annette/ECAI06-WS-CfP.html

SEPTEMBER 3-6, 2006
The 3rd International Conference on Ubiquitous Intelligence and Computing (UIC'06). Wuhan and Three Gorges, China.
http://grid.hust.edu.cn/uic06

SEPTEMBER 3-6, 2006
The 3rd International Conference on Autonomic and Trusted Computing (ATC'06). Wuhan and Three Gorges, China.
http://grid.hust.edu.cn/atc06

SEPTEMBER 3-7, 2006
The First Asian Semantic Web Conference (ASWC'2006). Beijing, China.
http://www.aswc2006.org

September 4, 2006
2nd International Workshop on Grid and Peer-to-Peer based Workflows (GPWW). To be held in conjunction with the 4th International Conference on Business Process Management (BPM 2006). Vienna, Austria.
http://www.ict.swin.edu.au/conferences/gpww/

SEPTEMBER 4-8, 2006
3rd International Workshop on P2P Data Management, Security and Trust (PDMST'06). In conjunction with the 17th International Conference on Database and Expert Systems Applications (DEXA'06). Krakow, Poland.
http://www.dexa.org/

SEPTEMBER 5-7, 2006
The Third International Conference on Soft Methods in Probability and Statistics (SMPS 2006). University of Bristol, UK.
www.enm.bris.ac.uk/SMPS

SEPTEMBER 11-15, 2006
14th IEEE International Requirements Engineering Conference. Minneapolis/St. Paul, Minnesota, USA.
http://www.re06.org

SEPTEMBER 13-15, 2006
10th European Conference on Logics in Artificial Intelligence (JELIA'06).Liverpool, UK.
http://www.csc.liv.ac.uk/~jelia

SEPTEMBER 15-19, 2006
International Conference of Numerical Analysis and Applied Mathematics 2006 (ICNAAM'2006). Crete, Greece.
http://www.icnaam.org/

SEPTEMBER 16-21, 2006
12th International Workshop on Groupware (CRIWG'2006). Medina del Campo, Spain.
http://www.criwg.org

SEPTEMBER 19-21, 2006
2nd Annual North American Game-On Conference (GameOn'NA 2006). Naval Postgraduate School, Monterey, USA.
http://biomath.ugent.be/~eurosis/conf/gameon-na/gameon-na2006/index.html

SEPTEMBER 20-22, 2006
The 5th International Conference on Entertainment Computing (ICEC'2006). Cambridge, Uk.
http://www.icec2006.org/

SEPTEMBER 22-25, 2006
The 7th International Symposium on Knowledge & Systems Sciences. Beijing, China.
http://www.iss.ac.cn/iss/conferences/KSS2006/index.html

OCTOBER 1, 2006
Workshop on Adaptive Approaches for Optimizing Player Satisfaction in Computer and Physical Games. In conjunction with SAB-06. Rome, Italy.
http://www.sab06.org

OCTOBER 5-6, 2006
BNAIC'2006. University of Namur, Belgium.
www.BNAIC2006.be

OCTOBER 8-11, 2006
2006 IEEE International Conference on Systems, Man, and Cybernetics. Taipei, Taiwan.
http://ins.cn.nctu.edu.tw/smc2006

OCTOBER 8-11, 2006
The 11th International Conference on Fuzzy Theory and Technology. Kaohsing City, Taiwan.
http://www.jcis.org/jcis2006

OCTOBER 11-13, 2006
The Third International Conference on Mobile Computing and Ubiquitous Networking (ICMU'2006). London, UK.
http://www.icmu.org/icmu2006/

OCTOBER 25-27, 2006
Fist European conference on Smart Sensing and Context (EuroSSC 2006). Enschede, The Netherlands.
http://www.EuroSSC.org

OCTOBER 27 - NOVEMBER 1, 2006
International Conference of Computational Methods in Sciences and Engineering 2006 (ICCMSE'2006). Crete, Greece.
http://www.iccmse.org/

OCTOBER 31 - NOVEMBER 1, 2006
International Workshop on Modeling Inter-Organizational Systems focusing on Collaboration and Interoperability, Architectures and Ontologies (MIOS-CIAO 2006). Montpellier, France.
http://www.cs.rmit.edu.au/fedconf/mios-ciao2006cfp.

NOVEMBER 6-7, 2006
Workshop on Ontologies for Urban Development: Interfacing Urban Information Systems. Geneva, Switzerland.
http://webdbdev.ucs.ed.ac.uk/ddm/staff/jlee/tt-intention.cfm

NOVEMBER 6-9, 2006
The 1st International Workshop on Semantic Web Applications: Theory and Practice (SWAT 2006). In conjunction with the 25th International Conferences on Conceptual Modeling (ER 2006). Tucson, Arizona, USA.
http://www.cis.drexel.edu/faculty/hhan/swat2006/
http://adrg.eller.arizona.edu/ER2006/workshop.html

NOVEMBER 28-30, 2006
2006 International Conference on Cyberworlds (CW'06). Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland.
http://vrlab.epfl.ch/cw2006/

NOVEMBER 1-3, 2006
The 21st International Symposium on Computer and Information Sciences (ISCIS'06). Istanbul, Turkey.
http://fens.sabanciuniv.edu/iscis06/

DECEMBER 4-6, 2006
Second IEEE International Conference on e-Science. Amsterdam, The Netherlands.
http://www.escience-meeting.org/eScience2006

DECEMBER 18-22, 2006
2006 IEEE/WIC/ACM International Joint Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT'06). Hong Kong, China.
http://www.comp.hkbu.edu.hk/~wii06

HOW TO SUBSCRIBE

The BNVKI/AIABN Newsletter is a direct benefit of membership of the BNVKI/AIABN. Membership dues are € 40,-- for regular members; € 25,-- for doctoral students (AIO's); and € 20,-- for students. In addition members will receive access to the electronic version of the European journal *AI Communications*. The Newsletter appears bimonthly and contains information about conferences, research projects, job opportunities, funding opportunities, etc., provided enough information is supplied. Therefore, all members are encouraged to send news and items they consider worthwhile to the editorial office of the BNVKI/AIABN Newsletter. Subscription is done by payment of the membership due to RABO-Bank no. 11.66.34.200 or Postbank no. 3102697 for the Netherlands, or KBC Bank Veldwezelt No. 457-6423559-31, 2ᵉ Carabinierslaan 104, Veldwezelt, Belgium. In both cases, specify *BNVKI/AIABN in Maastricht* as the recipient, and please do not forget to mention your name and address. Sending of the BNVKI/AIABN Newsletter will only commence after your payment has been received. If you wish to conclude your membership, please send a written notification to the editorial office before December 1, 2006.

COPY

The editorial board welcomes product announcements, book reviews, product reviews, overviews of AI education, AI research in business, and interviews. Contributions stating controversial opinions or otherwise stimulating discussions are highly encouraged. Please send your submission by E-mail (MS Word or text) to newsletter@cs.unimaas.nl.

ADVERTISING

It is possible to have your advertisement included in the BNVKI/AIABN Newsletter. For further information about pricing etc., see elsewhere in the Newsletter or contact the editorial office.

CHANGE OF ADDRESS

The BNVKI/AIABN Newsletter is sent from Maastricht. The BNVKI/AIABN board has decided that the BNVKI/AIABN membership administration takes place at the editorial office of the Newsletter. Therefore, please send address changes to:

Editorial Office BNVKI/AIABN Newsletter
Universiteit Maastricht, Tons van den Bosch,
Dept. Computer Science, P.O. Box 616, 6200 MD
Maastricht, The Netherlands
E-mail: newsletter@cs.unimaas.nl
http://www.cs.unimaas.nl/~bnvki