

In this issue amongst others:

Interview with Franciska de Jong from the governing board of NWO

Academic Publications



Introducing the ILLC PhD council A column by Dov Gabbay and Jane Spurr on academic publishing





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Согорном

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Foreword

Dear friends of the ILLC.

We are happy to finally present this belated twelfth issue of the magazine, covering highlights of the institute's life in 2010.

For this installment, we had the pleasure to ask a few questions from Prof. Franciska de Jong from the University of Twente and the Erasmus University of Rotterdam. We have touched upon several issues, ranging from scientific to more broadly 'academic' topics, and with a particular focus on research funding. As a member of the governing board of NWO and reviewer for the European Commission, we believe Franciska has given us some very valuable insights.

This issue hosts all the 'traditional' features you are accustomed to from the ILLC magazine. Ulle Endriss gives us the *Inspiring Research* column, and Jeroen Groenendijk and Floris Roelofsen present the *Research Highlight*. The alumni interviews will truly open up new horizons, cutting across continents and disciplines, and the guest column by Dov Gabbay and Jane Spurr will prompt you in new directions in the future of academic publications.

You will also find the regular questionnaire addressed to the new PhD students, as well as the unmissable group photo! This issue concludes with a novel 'twist' suggested to the editors by our manager Ingrid, the *ILLC ultimate whiteboard challenge*. Read till the last page to know what this is about.

We finally would like to thank all the contributors for the time and commitment they have put into this issue, and we wish you all a pleasant reading.

The editors,

Davide Grossi and Morgan Mameni

Projects awarded, December 2009 – February 2011

Regieorgaan-Geesteswetenschappenproject NWO for Barend Beekhuizen under

Beekhuizen under supervision of Rens Bod and Arie Verhagen

 Barend Beekhuizen has been granted a PhD project in the 2010 round of the NWO Regieorgaan Geesteswetenschappen. The project title is "Constructions Emerging" and investigates the extension of the Unsupervised DOP model towards the induction of semantic structure. The contract sum is 221 KEuro.

Free Competition NWO (Exact Sciences) project for Khalil Sima'an

• Khalil Sima'an has been granted a project proposal in the 2009 second round of the NWO Free Competition of the Board for Exact Sciences (NWO-EW Vrije Competitie). The project title is "Machine Translation when Exact Pattern Match Fails" and covers a PhD position. The contract sum is 216 KEuro.

Marie Curie grant awarded to Stefan Frank

• Stefan Frank, was awarded a Marie Curie Intra-European Fellowship for a two-year project entitled "Uncovering the nature of human sentence processing: a computational/ experimental approach". The project will be carried out at the Department of Psychology of the University College London, probably starting some time this summer.

UvA-CSCA project awarded to Henkjan Honing et al.

 Henkjan Honing and colleagues from other institutes (Lamme, Pennartz and Smeulders) were awarded a UvA-CSCA project "The role of neural plasticity in conscious perception". Henkjan Honing received funding for the position of one PhD student.

Free Competition NWO (Humanities) project for Jeroen Groenendiik

• Jeroen Groenendijk was awarded an grant in the NWO programme "Free Competition in the Humanities", for a project entitled "The Inquisitive Turn. A New Perspective on Semantics, Logic, and Pragmatics". He receives almost 600 KEuro for the appointment of 2 PhD students and 1 postdoc.

NWO VENI award for Katrin Schulz

• NWO has awarded a VENI grant to Katrin Schulz for her project "The semantic anatomy of conditional sentences". Katrin will receive the sum of 241 KEuro for a 4 year's parttime position as a postdoc (next to her UD position).

NWO VIDI award for Catarina Dutilh-Novaes

• Catarina Dutilh-Novaes, currently holding a VENI project at the ILLC, is awarded a VIDI grant for her project "The roots of deduction – Integrating philosophy, psychology and history". She will receive the sum of 800 KEuro to form her own research group consisting of one postdoc and one PhD student.

NWO Meervoud grant for Raquel Fernández Rovira

• Raquel Fernández Rovira has been awarded a grant as part of the MEERVOUD (MEER Vrouwelijke Onderzoekers als UD /More Women Researchers as University Lecturer) of NWO. The grant enables her to conduct four years of research as UD, after which the ILLC has ensured a permanent position. Funding for the MEERVOUD programme amounts to 220 KEuro per person.

Free Competition NWO (Exact Sciences) project for Stéphane Airiau and Ulle

 In February 2011, Stéphane Airiau and Ulle Endriss have been awarded a grant in the Free Competition of the NWO's Board of Exact Sciences (NWO-EW Vrije Competitie). The project, entitled "Aggregation of Preferences over Uncertain Outcomes", will finance Stephane's postdoc position for the coming three years.

Prizes and awards

Henkjan Honing awarded honorary KNAW-Muller

 Henkjan Honing is awarded an honorary KNAW-Muller Chair in 'Music Cognition', endowed by the Royal Netherlands Academy of Arts and Sciences (KNAW), as of September 1, 2010.

Ivano Ciardelli's MoL thesis wins AILA award

 Ivano Ciardelli's MoL thesis has been recognized by the Italian Association for Logic and its Applications as one of the best four MSc theses of the year.

MoL course 'Kant, logic and cognition' wins 2nd prize in the 'best course competition' of the Faculty of Humanities

•In a ceremony that took place on June 2, the MoL course 'Kant, logic and cognition' (Dora Achourioti and Michiel van Lambalgen) was awarded 2nd prize in the 'Onderwijsprijs' ('best course prize') competition of the Faculty of Humanities. The jury praised the way Kant's notoriously difficult Critique of pure Reason has been made accessible through a combination of original research and use of web resources.

Chantal Bax wins Praemium Erasmianum research prize

 The Erasmus Prize Foundation yearly awards five Research Prizes of 3,000 Euro in recognition of an exceptional PhD dissertation by a young academic researcher in the field of the humanities and social sciences. Chantal Bax receives the prize for her thesis "Subjectivity after Wittgenstein. Wittgenstein's embodied and embedded subject and the debate about death of man". Her promotor was Martin Stokhof.

STIL Prize for best Master Thesis in Computational Linguistics to Margaux

• Our former Master of Logic student Margaux Smets has been awarded the STIL Prize for the best Master Thesis in Computational Linguistics 2010. Her thesis, entitled "A U-DOP Approach to Modeling Language Acquisition", was supervised by Rens Bod and Federico Sangati. Margaux received the prize at the CLIN conference in Ghent on 11 February 2011.

Personnel arrived (excluding PhD students, see pages 17)

- Vincenzo Ciancia,
 Faculty of Science, postdoc as of January 1, 2010
- Floris Roelofsen,
 Faculty of Humanities,
 postdoc as of June 1, 2010
- Marijn Koolen,
 Faculty of Humanities,
 postdoc as of August 1, 2010,
 following his PhD at the ILLC,

Personnel left

- Tejaswini Deoskar,
 Faculty of Science, as of October 1, 2010
- Georgios Barmpalias,
 Faculty of Science, as of
 February 1, 2011
- Remko Scha, Faculty of Humanities, emeritus as of September 1,
- Stefan Frank,
 Faculty of Humanities,
 as of September 1, 2010
- Tikitu de Jager,
 Faculty of Humanities/Science,
 as of April 1, 2010
- Sebastiaan Terwijn,
 Faculty of Science, as of January 1, 2010



Interview with Franciska de Jong

Franciska de Jong is full professor of language technology at the University of Twente. She is also the director of the Erasmus Studio of the Erasmus University in Rotterdam (www.eur.nl/erasmusstudio/). She has been involved with several European projects and has been a reviewer for the European Commission since 1995. Since 2008, she is also a member of the Governing Board of the Netherlands Organization for Scientific Research (NWO).

We asked Franciska some questions about her scientific career, but also asked her to share with us some details of her perspective on the Dutch and also the European academic worlds.

Let us start off with science. Your broad range of research topics touches on several areas of interest within the ILLC's Language and Computation, but also Logic and Language groups. Could you briefly tell us where your interest in language started, and how you have arrived at your current research interests and agenda?

Interest in language is hard to isolate from interest in content and ideas, but my interest in linguistics was triggered in my first year as student of Dutch language and literature. I was both surprised and thrilled by the fact that so many

aspects of the phenomenon language could be analyzed from multiple perspectives. On the one hand there was the systematic analysis of sentential structures that I already had liked in elementary school. But the analytic challenge, just a not too simple puzzle, turned out to be deeply linked to debates on cognition, history, and philosophy. I remember it felt as being introduced in a world where simple things did no longer exist. One of the debates in those years concerned the balance between syntactic and semantic analysis, and I was drawn into the community of researchers for whom Montague Grammar was the framework in which they tried to model linguistic patterns. The Principle of Compositionality played a central role. In 1985, while I was in the final stage of my PhD track, I was invited to join a project team at Philips

Research that aimed to develop a machine translation system. The system was called Rosetta. It was based on the concept of compositional translation and in many respects inspired by - again - the Principle of Compositionality. During my studies in Utrecht I had already taken some courses in computer programming, but most of the available time was spent on preparing punched cards and transporting them to the academic computer center, often only to find out that one of the cards contained an ill-formed code due to a missing dot or so; and if the

the focus of research shifted to access technology for multimedia content, and in particular for spoken content from the cultural heritage domain. During my early years as a linguist the word 'semantic' was a very dominant notion, often used in combination with 'structure' or 'rule'. Nowadays it is a real buzzword, but with a completely different meaning, and with 'web' as the collocation term. I sometimes feel a strong inhibition and try to avoid using the word 'semantic' in this informal way and I do not even dare to think of how Quine would

"Having a background in formal linguistics still works for me as a sharp instrument in separating the wheat from the chaff."

punching machines were occupied the correction had to wait until the next day. At Philips we could work via computer terminals and only there I gradually developed into a computational linguist. In many ways was it was a very fruitful period, even though the research did not result in a product. The linguists involved in the project all acquired a deep understanding of the possibilities and complications of rule-based natural language processing, and several of them have been able to apply the insights and skills acquired in the Rosetta project in other areas. For me having a background in machine translation was a key factor in the decision to start a research track on crosslanguage information retrieval after I was appointed as professor at the computer science department of the University of Twente in 1992. Later on, inspired by the collaboration with archives for broadcast materials, perceive the ontological turn in modern knowledge management. This may sound as if having a background in formal linguistics is a handicap, but actually for me it still works as a sharp instrument in separating the wheat from the chaff.

Amongst your numerous current or recent research activities, two have caught our attention in particular. You are the director of the Erasmus Studio in Rotterdam, which houses an impressive array of multi-disciplinary research projects under the heading of e-research. We wanted to ask you to tell us about e-research and possibly comment on how you think e-research is shaping the future of scholarship. We also noticed that your website lists as one of your main research interests "cross-language retrieval and the disclosure of cultural heritage collections". Could you tell us a little bit about this project?

In all scientific domains the introduction of Information Technology (IT) has lead to changes with huge impact. The switch to digital datasets, the online availability of data and publications, tools for visualization of patterns, and the communication through email and list-services, are just a few of them. Information technology is also a trigger of all kinds of 'multi'-effects: more multi-disciplinarity, multitasking, multi-modality, and multi-party collaboration. In some disciplines the introduction IT has deeply affected the research agendas, in others, among which the humanities, this seems to take more time, partly because of the fact that one has to rely on the expertise of outsiders. Case studies investigating how the process of uptake takes place can help to organize the transition in those disciplines and to prepare new generation of scholars for the innovation of methodological frameworks. Collaboration with historians in the context of a project aiming at the application of speech recognition for interview collections (in order to make them searchable at fragment level and to be able to link them to other data sources) has taught me that the debate on how historians can use multimedia recordings as a primary source for their studies has hardly begun. To explore how such fields can benefit from tools that support data-driven research is part of the mission of the Erasmus Studio. This nicely fits in with my personal interest in accessibility of cultural heritage collections. Now that digital libraries and their catalogues and metadata are often online, it is becoming feasible to study those materials not in isolation, but as a huge distributed database. The linguistic elements (descriptors, metadata, primary text) can come in any language, so again this poses interesting challenges for the possibility to support search across languages and modalities

Let us turn our attention now to the second main concern that preoccupies any researchers after science. Namely, funding. Academia in the Netherlands, but also across Europe, has been experiencing some financial turbulence. As a member of the Governing Board of NWO, how do you see these latest developments? What are the major challenges that the board is currently facing? Also, could you maybe share with us what the vision of NWO currently is on the future of Dutch academia, and what methods and policies it puts in place to guarantee an effective and fair allocation of its funds?

The procedures for fair allocation are in good shape, but the available budgets are the main concern. They are way below the level needed for the funding of all proposals, which are assessed as very good or

for successes in the long run will decrease. How to convince the non-converted is one of the biggest concerns.

Together with NWO, Europe is also a source of extraordinary opportunities for Dutch researchers. In reading your impressive CV, we noticed one thing that struck us especially. You have been a reviewer for the European Commission since 1995. That is a long time! From this privileged viewpoint can you tell us how you think the main lines of research have evolved and how topics of interest have changed in these fifteen years? Can you recognize some clear patterns and directions? And finally, as writing project proposals is becoming "second nature" to contemporary academics, we cannot avoid asking: what would you - as a reviewer – give as the golden tip for writing a successful proposal?

will be much clearer. And my advice for those who are too junior to qualify as a reviewer: pay attention to the summary, the title and the introductory text. To attract and keep the attention of a reviewer who may have a huge pile of proposals to comment on, the distinguishing qualities of your proposal should jump out of the first page. The battle is won only in the second stage, but you can lose it already with a poor summary.

The playfield of European funding schemes is very diverse, and my involvement has been limited to the area that nowadays is tagged as Information Society. Through the years several trends emerged, some of which were very important for my vision on how academic research and industrial and societal interests can be usefully combined in joint projects. The most difficult and also most inspiring condition inherent to several of the more recent European programs is the focus on usability aspects. Usability is a much stronger requirement than mere applicability and presupposes that parties from very different backgrounds sit together from a very early stage onwards. For research aiming at increased accessibility of information, the understanding and modeling of user behaviour may seem an obvious stage to include in a work-plan, but it is still a relatively immature aspect of the research field I am working in, and there is ample room for developing best practices and measures stimulating the uptake of results generated by European projects. A trend that I hope will get stronger in the years to come is the stimulation of sharing of results and data through open source models. The possibilities for funding of the organization of benchmark events and participation in them, typically on the agenda of academic groups, should increase as well. Somehow they seem not to fit naturally in the funding instruments, while they can be a great catalyst for international collaborations.

"If you want to be successful as grant applicant it helps if you understand the point of view that a reviewer may take."

excellent. In other countries, like Germany and France, the financial crisis was considered a reason to increase the investments in research. Here we have to face budgets cuts. Apparently the idea that high quality research, both fundamental and application oriented, deserves a higher level of investment is less widespread among politicians than among academics. And maybe even more important, industrial parties and the general public do not seem to understand that it is hard to predict which research will have impact outside academia and when. But without funding for new research ideas and infrastructures, the chances

To start with the golden tip: if you want to be successful as grant applicant it helps if you understand the point of view that a reviewer may take. Therefore, say yes if you are invited for a selection committee, and sign up for the European Commission database of experts. This database is an important instrument for the EC in selecting candidates for their review and evaluation panels. If you are contracted for a proposal evaluation procedure you will be kept hostage for a number of days in some nondescript EC building with poor quality coffee, but afterwards the do's and don'ts for proposal writing

Research Highlight: Jeroen Groenendijk and Floris Roelofsen

Inquisitive algebra and the disjunctive-indefinite-interrogative affinity



1 'Roerenkool' and 'hutspot' are two Consi

untranslatable highlights of Dutch cuisine.

The phenomenon

Consider the following sentences in Dutch:¹

- 1 We eten vanavond boerenkool of hutspot. We eat tonight boerenkool or hutspot. 'We will eat boerenkool or hutspot tonight.'
- 2 Maria weet of we vanavond hutspot eten.
 Maria knows or we tonight hutspot eat.
 'Maria knows whether we will eat hutspot tonight.'

The crucial observation here is that the word *of* is used to form disjunctions, as in (1), but also to form embedded polar questions, as in (2). Now consider the following sentences:

3 Maria heeft wat gegeten. Maria has something eaten. 'Maria ate something.' 4 Wat heeft Maria gegeten? What has Maria eaten? 'What did Maria eat?'

Here, the crucial observation is that the word *wat* can be used as an indefinite pronoun, as in (3), but also as an interrogative pronoun, as in (4).

It turns out that this is a widespread phenomenon. In many languages, words that are used to form disjunctions are also used to form polar questions, and words that are used as indefinites are also used as interrogative pronouns. In some languages (e.g., Japanese), the affinity is even more dramatic: one word is used for all three purposes.

How to make sense of this?

These observations have inspired several attempts to devise a compositional semantics in which the semantic contribution of disjunctive, indefinite, and interrogative operators is closely related, or even exactly the same.

So the observed morphosyntactic correspondence is taken to reflect a semantic correspondence, and to give linguists an important clue in figuring out the semantic contribution of the relevant operators.

These attempts have been quite fruitful. However, it would go a bit too far to say that they really explain the observed affinity. After all, even if the proposed semantic theories suitably reflect the affinity between disjunction, indefinites, and interrogatives, they have been designed to do exactly that, and lack any independent motivation. In this sense, they are ad hoc, and lack any explanatory value. Ultimately, we would like to have a semantic theory that reflects the observed affinity between disjunction, indefinites, and interrogatives, but is motivated independently.

Inquisitive algebra

Establishing such a theory has been one of the research highlights of the Inquisitive Semantics project in the past year. Let us briefly sketch the basic insight (see Groenendijk and Roelofsen, 2010, for more details).

Traditionally, propositions are construed as sets of possible worlds. As such, each proposition embodies a certain piece of information, namely the information that the actual world is one of those worlds that the proposition consists of. The basic aim of inquisitive semantics is to introduce a new notion of propositions, one that embodies both informative and inquisitive content. Technically, propositions are construed as sets of alternative possibilities, where each possibility is a set of possible worlds, and (simplifying a little bit) two possibilities are alternatives if and only if neither of them is contained in the other.

Now how do these kind of propositions embody both informative and inquisitive content? As follows: a proposition π provides the information that the actual world lies

in at least one of the possibilities in π , and at the same time it requests enough information to pick at least one of these possibilities and establish that the actual world lies in there. For example, suppose that 11 is a world in which Maria ate both hutspot and boerenkool, 10 a world in which she ate only hutspot, 01 a world in which she ate only boerenkool, and 00 a world in which she refused to eat any of the two. Then the proposition depicted below provides the information that Maria ate hutspot and/or boerenkool, and at the same time it requests information in order to establish either that she ate hutspot, or that she ate boerenkool.



We call a proposition inquisitive if and only if it requires an informative

response. This is true just in case the proposition consists of at least two alternative possibilities.

Now here comes the insight: once we have this conception of propositions, we also have a natural way to order them: $\pi \ge \pi'$ if and only if π provides and requests at least as much information as π '. And once we have this order between propositions, we can see what kind of algebraic structure that order gives rise to. It turns out that for any two propositions π and π , there is a proposition π " that is the greatest lower bound of π and π ' relative to \geq , which, in algebraic jargon, is called the meet of π and π '. Similarly, for every π and π ', there is some π " that is the least upper bound of π and π ' relative to \geq , which is called the join of π and π '. This means that the set of all propositions ∏, together with the order ≥, forms a lattice. This lattice is bounded (there is a top and a bottom element), but it does not form a Boolean algebra (not every proposition has a complement). However, every proposition does have a so-called

pseudo-complement relative to any other proposition, which means that $\langle \Pi, \geq \rangle$ forms a Heyting algebra.

Notice that up until this point we have not talked about language at all, just about propositions as abstract semantic objects in their own right. Now let us assume that the semantic operators we found, meet, join, and relative pseudo-complementation embody the semantic contribution of disjunction, conjunction, and implication, respectively, and that negation amounts to pseudocomplementation relative to the bottom element of our algebra. These assumptions are completely standard, only now we have started with a different notion of propositions and, accordingly, a different order on them. Given these assumptions, it follows that disjunction is a source of inquisitiveness. In fact, it is the only source of inquisitiveness: conjunction (join) only delivers an inquisitive proposition if at least one of the conjuncts is inquisitive to begin with, implication (relative pseudocomplementation) only delivers an inquisitive proposition if its consequent is inquisitive to begin with, and negation (pseudocomplementation relative to the bottom element of our algebra) never yields an inquisitive proposition.

This story can be extended to existential quantification. Thus, we obtain an inquisitive treatment of disjunction and existentials, driven by purely abstract semantic considerations, independently of any empirical linguistic observations. This, then, forms the basis for a proper explanation of the disjunctive-indefinite-interrogative affinity.

References

Groenendijk, J. and Roelofsen, F. (2010). Inquisitive and alternative semantics. Presented at the Nantes Worshop on Alternative-based Semantics, October 2010. Slideshow available at www.illc.uva.nl/ inquisitive-semantics. DOV GABBAY AND JANE SPURR

Academic Publications the Future



Comments received about our publishing model include:

"College Publications is one of the best and most ambitious new publishing houses around; one of the prime venues for publishing interdisciplinary research in formal philosophy and probably the most interesting independent initiative in academia in recent years.

Respectable, reliable, racy." Vincent Hendricks

"Two of CP's most impressive strengths to date are the substantial welcome it has had in the research communities it serves, and its willingness to publish works of a kind that have largely disappeared from the lists of the more established presses. ... The driving idea at College Press is "if it's good, then it must be published." John Woods

"We admire the objectives of College Publications, and we were impressed by the speed of publication, the quality and the price..." Tony Blair and Ralph Johnson

It is a widely held opinion that all publications, academic or otherwise (with the possible exception of very popular books and periodicals) will disappear altogether in their current format. The writing is already on the wall with respect to other forms of media, especially music.

With technology constantly moving forwards, and accessibility being made easier and easier, everything will eventually be purchasable electronically - how many people do you know who got an e-book reader last Christmas? The future is in "micro-chunking", delivering small sections of media, whether it's music, video or text to consumers who want a specific focus. In terms of books, it is an obvious move to be able to make individual chapters available to readers. The trick will be to alert the potential customer to what he needs. Giving every chunk or chapter easy, simple, predictable and findable tags/ keywords is the challenge. Your search engine will do the rest!

The printer that we use for College Publications titles is in partnership with "Espresso Book Machines" - a world-wide network of sophisticated printers in bookshops and libraries, etc., where a customer is able to select a title from the library and buy it as a print-on-demand title there and then. The whole process only takes a matter of minutes to print and bind a single paperback book!

It is telling that even the world's great publishers, Oxford University Press, Springer, etc., are moving into print-on-demand technology.

Launching College Publications was possible because of this revolution in technology. A print-on-demand publishing process means

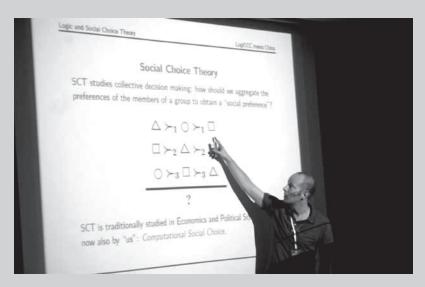
that we don't have to be a bookseller as well as a publisher! We believe that CP is able to plug the hole that traditional publishers have left. It became quite evident over the last few years that key academic publishers were no longer interested in collections, whether conference proceedings, thematic multi-author volumes, or "Festschrifts". These were not considered to be viable financially, and publishers were concentrating their efforts on adopting books that would provide them with large sales. Even so, the retail price of such books makes them unaffordable to most individual pockets.

The idea of College Publications is that there is still a need for books to be published of all types, quickly and affordably. To date, we have a library of more than 100 titles. Our reputation is growing, and we get proposals on an almost daily basis for books covering the topics of Computer Science, Philosophy, Logic, Software Engineering, Computational Semantics, Communications Mind and Language, as well as some Humanities-based proposals, and we are successfully publishing Series in French and Portuguese.

It seems that our vision for affordable books with minimum delay between delivery and publication (typically about 10 days) is growing in popularity both with authors and with readers.

INSPIRING RESEARCH: ULLE ENDRISS

Automated Theorem Proving and Social Choice Theory



During my final year as an undergraduate at the University of Karlsruhe, I picked an elective course with the mysteriously sounding name "Automated Theorem Proving". I expected some sort of black magic: how marvelous would it be if you could get a computer to automatically prove things for you! Naturally, I was thinking of things such as Fermat's Last Theorem (saying that the equation $x^n + y^n = z^n$ has no solutions in positive integers for any n greater than 2), which at the time had just been proven (over 350 years after it had first been claimed to be true). Fame and fortune seemed but a small step away.

It didn't quite turn out to be like that, but it was still pretty amazing. In fact, some of the best work in Automated Theorem Proving at that time came out of Peter Schmitt's group, who was teaching the course. A very nice example is a paper by Bernhard Beckert and Joachim Posegga that shows how a simple computer program with just five lines of code can implement a complete and efficient theorem prover. Not everyone will find the paper immediately appealing (the abstract basically consists of that

five-line program!), but the basic idea that we can use a very simple formal language to describe a vast range of different problems and that we can often succeed in solving those problems using an entirely mechanical method I still find deeply inspiring today—and that paper is just a particularly compact expression of that very idea.

A few years later I started working as a postdoc at Imperial College in London, in a research group looking for new applications of computational logic to multiagent systems, a.k.a. "societies of agents". It soon became clear that if we wanted to make a real contribution we would have to find out what economists and political scientists had to say on the matter. So, one day, I went to the library at Imperial and just took out a pile of books that had the word "social" in the title, but that still looked a bit technical. I started reading the smallest amongst them first: "Social Choice and Individual Values" by one Kenneth

I had no idea that what I held in my hands was one of the most influential works in the social sciences of the 20th century, a book that single-handedly started Social Choice Theory (the formal study of how groups of people should and do make collective decisions), and the début of someone who, in 1972, had become the youngest ever Nobel Prize winner in Economics. But even without all of that background knowledge, I soon realized that what I was reading had to be important stuff. The technical core of Arrow's contribution may be more easily accessible through modern expositions, but his strong plea for the use of formal methods in a field where you might not immediately expect that they could play a role still makes for highly recommended reading for everyone.

Nowadays I'm trying to combine both my early and this somewhat more recent fascination. For example, with Umberto Grandi, who is writing a PhD thesis in Computational Social Choice, I've been working on modeling the Arrovian framework of preference aggregation in classical first-order logic, which is interesting in its own right but which also might, one day, provide the foundations for using first-order theorem proves as a tool in Social Choice Theory. And with Christian Geist, a recent Master of Logic graduate, I've been working on using satisfiability solvers to automatically search for new theorems in an area of Social Choice Theory concerned with the problem of ranking sets of objects.

References

B. Beckert and J. Posegga. leanTAP: Lean Tableau-based Deduction. Journal of Automated Reasoning, 15(3):339–358, 1995.

K.J. Arrow. Social Choice and Individual Values. 2nd edition, Cowles Foundation Monographs Series, Yale University Press, New Haven, 1963.

What's new? A PhD council at ILLC

Conception

The carpets on the wall, the Arthurian circular table we are sitting at, even the napkins smell of noodles and huã jião, a strong spice characteristic of this part of southwest China. We, PhD students sent in this remote land to spread the word of logic, are constantly thinking about our far away motherhouse, the ILLC.

Inspired by the megalopolis of Chongqing, surrounding us with its subtle democratic atmosphere, we fill our heads with questions: Are we well represented at our institute? Do we have any power to influence decisions? Do we even know where and how decisions are taken?

The smell of hotpot is now more

PVC talks that we want a representation, or we will stop proving theorems!" What is being said behind the closed doors of a PVC talk is a secret issue, and only a small number of selected staff members have the privilege to know it, but most probably no PhD student has pronounced the word "theorem". But let us move on with the story, leaving this chapter to the wisdom of the archives.

What is public instead is that the report of the PVC committee of 2009 states the need of a PhD representation in the institute. Immediately a quick chain of actions is taking place. Apparently everyone at ILLC, even the people hiding in Beth's library and the people of the Monday morning coffee, recognize the need of PhD students' representation and is eager to see a PhD council. The community is not yet prepared. A general assembly is called.

students are unanimously elected to form the first PhD council of ILLC: Inés Crespo for LoLa; Federico Sangati for LaCo (replaced by Gideon Maillette de Buy Wenniger since October 2010) and Nina Gierasimczuk, Umberto Grandi, Raúl Leal Rodríguez for LoCo (Nina defended her thesis on December 17th! Thanks for your work and initiative, Nina!). The institute provided food and shelter, and we cannot be more grateful for that.

The newly elected PhD Council of ILLC immediately starts working at a hard pace. Here is an account of its activities during 2010.

The first thing to do was to get

First steps

acquainted with the bi-monthly program leaders' meeting (PLM). intense. The atmosphere gets spicy. A member of the PhD council is now Rirth present at the meetings in which Thanks to the important decisions about our Institute (funding, wall-less new setting of the PhD The first PhD-Day took place on organisational rooms in Science Wednesday 24 February 2010. The structure, new Park, the voice community is settled, and a long list activities or spreads quickly: of problems and proposals for the projects) are "Say during the future is compiled. Five PhD taken.

In one of these meetings it was decided to create bonuses for PhD students having their dissertation approved by their committee before the end of their contract. Another piece of news is the institute's recent policy to maintain a target of 10% of ILLC PhD theses obtaining the mention 'cum laude'.

meetings. One of such points is our request to have forwarding of our UvA email account and website after the termination of our contracts. We also think we could organise a meeting of ILLC postdocs and PhD students in the spring of 2011, thinking that postdocs could tell PhD students a bit more about their

"Say during the PVC talks that we want a representation, or we will stop proving theorems!"

The PhD council pointed out to the PLM some months ago the upcoming decrease in the number of PhD students. Now 3 new positions funded by UvA have been announced, and a PhD student will be a member of the hiring committee. We are very happy about all these results and we must acknowledge to the PLM that collaboration with them has always been smooth and fruitful.

The PhD council is also now taking the bookkeeping of PhD students' teaching activities. Since autumn 2010, there is a new procedure for the allocation of teaching assistant positions. First, information is gathered about courses which need a TA. This information is spread among PhD students that can bid and decide which courses to teach. With this new system, PhD students' teaching activities are determined well in advance before the start of a new semester, giving students the possibility to plan well their teaching duties. There is, furthermore, a record of these commitments, and many extra funded positions could be created.

After the creation of the PhD council, the ILLC postdocs have organized themselves to also have representation at the programme leaders' meetings. The council and the postdocs have tried to jointly put forward common requests in these

experience as students, and their transition from a PhD to a postdoc position.

We have also promoted contact with MoL students by organising the first "PhD talks" day in November 2010. This event is meant to encourage collaboration and interaction between PhD and master of Logic students. A good deal of PhD and master of Logic students participated, making it a very enjoyable day. This might be because of the drinks offered by the institute at Polder after the talks finished, or maybe because of a soccer match organised by MoL students (and won by PhD students with some help), or maybe because of the curiosity of our students and their interests in our activities.

The council was also involved in the bittersweet symphony of the pilot project for noise management in room C3.119. The situation was so complicated that one of the Augustus organisers proferred the notorious sentence: veni, vidi, vakantie...

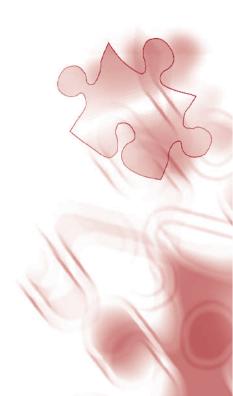
Other activities include a LaTeX mini-course taught by Fernando Velázquez-Quesada offered to all MoL and ILLC-PhD students, encouragement and support to PhD students in building their personal web pages, and the organisation of a second PhD day in November 2010.

Future

The PhD movement now transcends our institute. The PhD council of FNWI came to exist in the spring of 2010, and now a member of the PhD council is also a representative there. (www.science.uva.nl/fnwiresearch/phdatthefaculty/)

The amount of activities and proposals that have been put forward in less than a year is astonishing, thanks to the collaborative attitude we found in Ingrid, Leen and all the ILLC staff, always open to hear a new proposal and help us setting up new projects. We hope that this experience will continue and that more and more people will get interested in organising and enhancing our (not always) working environment.

The PhD council phdcouncil.illc@gmail.com http://illc-phd.wikidot.com/



Interview with Dr Fenrong Liu and Daan Dirk

Alumni

Our ILLC alumni interviewees this year are Dr Fenrong Liu and Daan Dirk. Dr Liu completed two degrees at the ILLC: she received her MoL degree in 2004, and was awarded a PhD in 2008. She is now Associate Professor of Logic at Tsinghua University in Beijing, China.

Daan Dirk completed his MoL degree at the ILLC in 2009. He is now an independent video artist, and logic still seems to be a source of inspiration for him. To see what he is up to, visit his website at www.daandirk.nl.



Fenrong Liu

Let us start off with a somewhat obvious question. As a MOL student first, and then as a PhD student you have spent many years in Ams terdam coming from what we here call "the far East". Have you ever experienced a "cultural shock" in these years? Maybe when you first moved from China to Europe? Or maybe even when you moved back to China from Europe?

Yes, I still remember the first period when I moved from China to Europe. Let me just give you two small shocks. What surprised me most was hearing students call teachers by their first names. This is considered impolite in China. It took me a very long time to start doing so, and I still feel uneasy with it at heart. I was also impressed by the "party culture" – there are so many reasons why one can hold a party. I remember those nights when I tried

to concentrate on finishing my homework despite the very loud party music in the Lobby of the building I lived. Anyway, over time, I was no longer "shocked" by those superficial things. I got to know more people, and became part of the ILLC culture, which suited me very well. Maybe surprisingly, I often found that people think alike, even though they are from different parts of the globe. All those experiences make me often think of the similarities and difference between cultures, a hot and controversial issue nowadays. Traveling in the other direction, it was easier for me to adjust to Beijing again when I moved back in 2008, though I have to say frankly that I miss many aspects of my life in Amsterdam.

Tell us something about your background and how you got interested in logic. You are now associate professor of logic at the Department of Philosophy of the Tsinghua University in Beijing. Was philosophy your background when you started the MOL program? What took you to the formal side of philosophy?

I studied philosophy as an undergraduate student. The typical curriculum of a Chinese philosophy department includes courses in Chinese philosophy, Western philosophy, philosophy of science, ethics, esthetics, logic, religion and Marxist philosophy. Among the courses I had taken, I was particularly interested in logic and logic-related subjects, for instance, analytical philosophy. I was intrigued by the precision one can achieve by applying formal methods. And I was so amazed to see the general structure of arguments emerge through formal analysis. I was very lucky to join the MOL program at the ILLC during 2003-2004. Thanks

to my systematic training in logic, I feel I have gained new perspectives and more power towards many philosophical issues than before.

Have you always had the ambition to pursue an academic career, or when did you take that decision? And have you ever contemplated the possibility of pursuing an academic career in Europe?

Pursuing an academic career fits very well with my own personality. I like digging into issues carefully, while thinking independently. I also like spending time freely without

Comparing the Dutch and Chinese environments, I think there are lots of things we Chinese should learn from Holland. But I will just mention one. The president of my University, Professor Gu Binglin, once pointed out at a meeting with young scholars that Tsinghua University has very good hardware, but we need to improve our software. I totally agreed. Whether a university is good or not is not measured by how many buildings and facilities we have, but by the personal qualities of our researchers and students. In that aspect, I think that the Dutch universities and

"Whether a university is good or not is not measured by how many buildings and facilities we have, but by the personal qualities of our researchers and students."

rigorous schedules, developing my other interests, too. Therefore, being a scholar seems the perfect profession for me. As for the choice of pursuing my career in Europe or in China, I prefer China, as I am more needed there than in Europe, and also, I can find better Chinese food in China than in Europe;). Food, too, is an important dimension of Chinese culture – maybe more so than in Holland.

Now something about academic life. As an expert in both the Dutch and the Chinese academic environments, would you be able to sum up for us what you think are the main differences between the two? And maybe what should they learn from one another, in order to improve themselves?

foundations provide more flexibility for researchers to pursue what they like to do, and foster more of a real culture of intellectual inquiry. And also, their system of quality assessment seems better than what we currently have in China. As for Holland learning from China: maybe I could think of a few suggestions – but telling others what to do is not a Chinese virtue.

Well, the last question is about the future of logic in China. In the last years China has become a very active research environment in logic, hosting several interesting conferences (such as LORI) and establishing a wide international network. You have been and are playing an important role in this. How does the future of logic in China look like?

Thank you for your kind words! Indeed, China is undergoing a dramatic change nowadays, both in economics and in academics. The central government and the Chinese universities have great ambitions for achieving more in the near future. In academics, the consensus is that we should push further collaboration with international colleagues. Special funding for exchange programs has been set up in recent years. Even permanent university positions are now open to foreign scholars, while special positions have been designed for involving experts from abroad. For instance, Johan van Benthem has just become our "National Distinguished Professor", a new program started in 2010 by the Ministry of Education. I am sure that this trend of internationalization will continue. This provides great opportunities for the development of logic in China, which has current active centers such as Beijing, Chongqing, and Guangzhou that put on regular events that several ILLC people have attended. As for my own involvement in this, the LORI conference has been a great success in establishing collaboration between Chinese logicians and scholars worldwide working on logics of information and agency, and I think that its tradition will continue. In addition, I am involved in a new series of workshops on the history of Chinese logic (the first was held in Amsterdam, November 2010), with a broader emphasis on mutual understanding between people and cultures. I hope there will be more such initiatives in the future as the family of Chinese ILLC alumni grows. Especially, we need to better connect logic research in China between the same disciplines that come together at ILLC: philosophy, mathematics, linguistics, computer science, cognitive science. We still have a way to go there. I will be happy to co-ordinate in any possible way.



"You see an icon of a human eating an apple.
The apple has the word
Logics on it. A seed in the inside of the apple
appears. The figure spots this seed and consequently a tree starts to grow out of its head."

Daan Dirk

You completed the Master of Logic program at the ILLC, and you are now working as a video artist. We had a look at your videos and they immediately struck us as "logical". Do you feel there is a close connection between your interest in logic and art? Does your passion in one area inform or support the other?

I prefer simplicity and order in my work and have made a few informative animations. Logical thinking certainly influences my 'what and how'. To transform a situation into an image I need to simplify it. Knowing which elements are needed and which elements are redundant is very important. This is not always apparent and often counter intuitive. The internal logic of a situation is as important as the content itself.

When looking at the world logicians and artists act in the same way. We schematize and pick out what we think is important. It feels great to end up with a clear and informative image, preferably a bit funny.

Other projects have a more 'illogical' feel. With Volle Band (volleband.nl) I'm building media bicycles, which is simply put: a

bicycle with a television, projector and/or speakers attached to it. We ride these bikes around Amsterdam and play games, videos and music. With this project we try to give a subtle critique to the way communication is used in our western society. In this project form and content have a different relation. The message of these bikes is not as apparent in every performance or image of the project.

Let us stick to your videos. They seem to exploit very creative and efficient means to convey a range of complex ideas in simple images. As such, you seem to be developing powerful tools for disseminating information. Do you intend your work primarily for educational or artistic applications?

I have a tendency to create very clear images and I have used this to my advantage. Infographics, which are in demand, are a lot of fun to make because of the content. You really need to understand what you are going to show. Research is very important. The primary use of these animations is to inform. I try to make this enjoyable without losing complexity or content.

Visual metaphors can give a message a lot more impact. I think it works well because doing so taints the situation. Eventually I hope these metaphors get stuck in the viewers mind.

I also make animations simply to be enjoyed. For which I use the same style and technique. I guess it has been pretty clear when I intend to be informative and when I'm not. I would love to make something like Look Around You (a silly British TV show spoofing 70s school programmes) but that hasn't happened yet.

Suppose the ILLC were to commission you to prepare a video to promote logic to a wider audience, how would you approach the project?

You see an icon of a human eating an apple. The apple has the word Logics on it. A seed in the inside of the apple appears. The figure spots this seed and consequently a tree starts to grow out of its head. It is a tree with a lot of different shapes and it bears a lot of different fruits. The camera zooms in on the tree and sores up to the top, trying to follow

Science and art are similar, as both disciplines allow a lot of freedom in both subject and method. Self-discipline is important. I don't have problems staying up, making animations into the wee hours of the night. The paperwork can be a bit of a bore, but that stuff seems unavoidable whatever career you end up in.

I enjoy myself with what I do and I'll just see what comes along. I haven't had problems finding work. Somehow every project leads to another.

I would love to get some sort of long-term commissions as a regular for a magazine or website. But long-term commissions are hard to find. I read that universities nowadays only get temporary and flex-workers. So I guess everybody, scientists and artists, are regularly looking for new projects.

Does the question of selecting an exclusive career in art versus science preoccupy you? Do you think you will ever go back to academia?

"The camera stops when we see the figure again, who is enjoying the view, sitting on top of the tree. Words pop up on the horizon: Logics give you that view."

how fast it grows. The camera stops when we see the figure again, who is enjoying the view, sitting on top of the tree. Words pop up on the horizon: Logics give you that view.

It would be best to make a few versions. Others could be with the Copernican turn, Euclidean/non-Euclidean shift or a gestalt-switch.

You have not only moved from logic to art, but also from academia to, shall we say, the "market". Your work has attracted commissions from eminent establishments, such as the Van Gogh Museum and de Balie. Can you tell us about your experience as a freelance video artist in the Dutch video art market?

Mucking about in academia taught me to focus and find the core of theories and thoughts. I don't expect to go back, but I wouldn't have missed it for the world. Being able to express thoughts, to choose and to understand how to get somewhere is invaluable. This is especially so when you want to clarify complex ideas.

But then I can choose to forget all that structure and just make some pretty shapes and colours.

PhD defences

- 11 December 2009

 Joel Uckelman, More Than the
 Sum of Its Parts: Compact
 Preference Representations Over
 Combinatorial Domains
- 15 December 2009

 Tikitu de Jager, "Now that you mention it, I wonder...":

 Awareness, Attention, Assumption
- 15 December 2009

 Michael Franke, Signal to Act:
 Game Theory in Pragmatics
- 9 March 2010

 Jonathan Zvesper, Playing with
 Information
- 9 March 2010
 Cédric Dégremont, The Temporal Mind. Observations on the logic of belief change in interactive systems.
- 24 March 2010

 Reut Tsarfaty, RelationalRealizational Parsing
- 1 June 2010

 Daisuke Ikegami, Title: Games in Set Theory and Logic
- 22 June 2010
 Jarmo Kontinen, Coherence and
 Complexity in Fragments of
 Dependence Logic
- 21 September 2010
 Yanjing Wang, Epistemic Modelling and Protocol Dynamics
- 2 December 2010
 Marc Staudacher, Use theories of meaning: between conventions and social norms
- 9 December 2010
 Gaëlle Fontaine, Modal fixpoint logic: some model theoretic questions
- 9 December 2010 Amélie Gheerbrant, Fixed-Point Logics on Trees
- 14 December 2010
 Jacob Vosmaer, Logic, Algebra
 and Topology. Investigations into
 canonical extensions, duality
 theory and point-free topology
- 17 December 2010

 Nina Gierasimczuk, Knowing

 One's Limits. Logical Analysis of
 Inductive Inference
- 27 January 2011
 Wouter M. Koolen, Combining
 Strategies Efficiently:
 High-Quality Decisions from
 Conflicting Advice
- 22 February 2011
 Fernando Raymundo Velázquez
 Quesada, Small steps in dynamics of information

The ILLC magazine is happy to introduce the four new PhD students since the last edition. We have carefully crafted the questionnaire to reveal the core characteristics of this set of promising junior scholars!



What is your name?
Gideon Maillette de Buy
Wenniger
How old are you?
I'm 27 years old.
When did you start?

I started on the first of June 2010.

What is your (academic) background?

I'm a former AI student from the University of Amsterdam. I originally specialized in Intelligent system, particularly Machine Learning, Robotics and Computer Vision. I always had a strong interest in Hierarchical structure in representations and systems. I'm also a former Bèta-gamma propedeuist. While formerly a student race rower, I now specialize in swimming and running.

How will your research change the world?

The fundamental research I'm doing on alignments and tree-based translation will lead to much more robust and accurate translation, particularly for syntactically differing Language pairs such as English-Dutch. This fundamental research has a lot of direct applications in better automated translation systems, of course I also hope to make one standard work during my PhD, something like Viola and Jones is for Computer Vision, it would be nice to have Sima'an and Maillette de Buy Wenniger for Translation.

Who are your supervisors?

My Supervisors are Khalil Sima'an and Remko Scha

What do you love most about Science Park?

What I love most about Science Park is the people and relaxed atmosphere.

What is your favorite non-Dutch word?

My favorite non-Dutch word is perhaps the verb "surmount", but closely followed or matched by "differentiation". As few people know, differentiation is not just a mathematical operation, or the specialization of cells. It is also an important psychological concept, introduced by Murray Bowen. "Differentiation of self refers to one's ability to separate one's own intellectual and emotional functioning from that of the family." Here family can also mean partners or close friends. Without differentiation one is convicted to what is called "emotional fusion", which implies painful and destructive relationships with loved ones, which cannot be maintained in the long run.

What is your favorite ethical principle? My favorite Ethical principle... I'm fond of

one of the motto's of Ayn Rand:
"Just as an idea unexpressed in physical
action is contemptible hypocrisy, so is
platonic love—and just as physical action
unguided by an idea is a fool's self-fraud, so
is sex when cut off from one's code of
values." The main point for me is that if
you have a certain goal, your actions should
match it.

Which branch of science do you think is the most useful?

The most useful science I think is research on (clean) energy and in the long term fusion energy. We are and will be facing a lot of environmental problems now and in the future, and clean energy will be one of the keys to our survival as a species. However, I also believe that part of the problem is wrong interests by certain parties, who manage to keep the oil-based economy running, even though environmental friendly alternatives are waiting to be put to use. Another factor is the price. If energy would just become very expensive (as for example it is to some extend in Japan) it can be shown that there will be a lot more effort to save it.



What is your name? María Inés Crespo. People normally call me Inés. (Only my relatives call me by my first name.)

How old are you?

28 years old.

When did you start?

I became a PhD student in February 2010. What is your (academic) background?

I did my undergraduate studies in Córdoba, Argentina. I studied Philosophy, focusing on logic, epistemology, and philosophy and history of science. Then I completed the master in Logic here, at ILLC.

How will your research change the world?

It will hopefully clarify some epistemological conditions of honest utterances containing adjectives like 'tasty', and it will shed some light on the normative dimension of such words' meanings.

Who are your supervisors?

Martin Stokhof, Frank Veltman, and Robert van Rooii.

What do you love most about Science Park?

The geese I meet when cycling to get there, and the aula "Pietro Galliani"

What is your favorite non-Dutch word? esdrújula (Sp); vachement (Fr); gambit

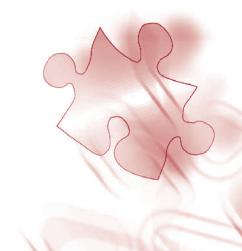
esdrújula (Sp); vachement (Fr); gambit (Eng); Traurigkeit (Gr)

What is your favorite ethical principle?

A non-Kantian principle of autonomy based on the necessity of human interaction rather than on mere duty.

Which branch of science do you think is the most useful?

I can't say whether it's the most useful, but my family and I are very grateful to the wonders of neuroimaging.





Matthijs Westera

How old are you?
23 years.

When did you start?
I started in the year 1987,

What is your name?

but I've been at the ILLC only since November 2010.

What is your (academic) background?

I grew up in Heerlen, Limburg, but due to my parents' more Northern roots the Creole language spoken there never settled in my brain. I obtained a bachelor and master degree in Cognitive Artificial Intelligence at Utrecht University. It is called 'cognitive', because the programme is about knowledge rather than e.g. robot movement. The approach in Utrecht is quite philosophical, and it took a while for me to appreciate that (say, the first four years). But now I do, very much. During my master, I spent six months at the Language **Evolution and Computation Research Unit** in Edinburgh. My master thesis was on nativism and the lexicon-syntax interface.

How will your research change the world?

The Inquisitive Turn will increase our understanding of, among other things, human communication, and such increased self-awareness is the/a way to world peace. Plus, I will be able to communicate very naturally with my giant robotic army.

Who are your supervisors?

Jeroen Groenendijk and Floris Roelofsen.

What do you love most about Science Park?

Aside from the blanket of academic excellence in which to wrap up oneself comfortably, sipping tea, definitely the two pairs of potted trees guarding the approach, giving me a warm welcome nearly every morning.

What is your favorite non-Dutch word? Avaaz.

What is your favorite ethical principle?

All creatures are generally good, and quite interesting, even if you don't know their names.

Which branch of science do you think is the most useful?

In the absence of a clear winner, perhaps philosophy. Would this offend or flatter philosophers? I guess I'll find out shortly.



What is your name?
Sanchit Saraf
How old are you?
22.
When did you start?

September 1, 2010.

What is your (academic) background?

I am a Masters in Mathematics and Statistics with my M.Sc. Project in Modal Logic.

How will your research change the world?

Well, it gives my future researchers a direction in which they should (or shouldn't) work. Hoping to take a small mental step for a man which eventually path a way for a giant leap for mankind.

Who are your supervisors?

Professor Benedikt Loewe.

What do you love most about Science Park?

It is in Amsterdam. (Seriously, "love" about Science park?:P)

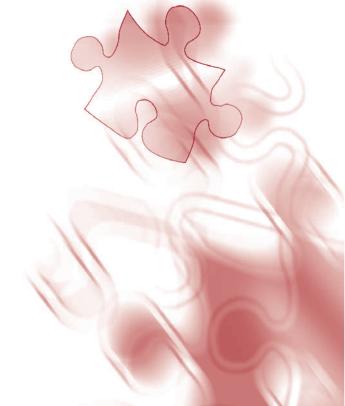
What is your favorite non-Dutch word?

Bajar (A not-so-vulgar form of Asshole/ Moron/Idiot in my native language).

What is your favorite ethical principle?

Always make choices you wont regret later.
Which branch of science do you think is the most useful?

Logic. Of course.



The ILLC ultimate whiteboard challenge

Instructions:

- Match each whiteboard snapshot with the office where it comes from (draw lines from pics to rooms on the map).
- 2. Submit your results to the editors (if you're able to find any).
- 3. (Hope to) Get a prize.

Idea: Ingrid van Loon ©
Realization: Davide Grossi
and Morgan Mameni

