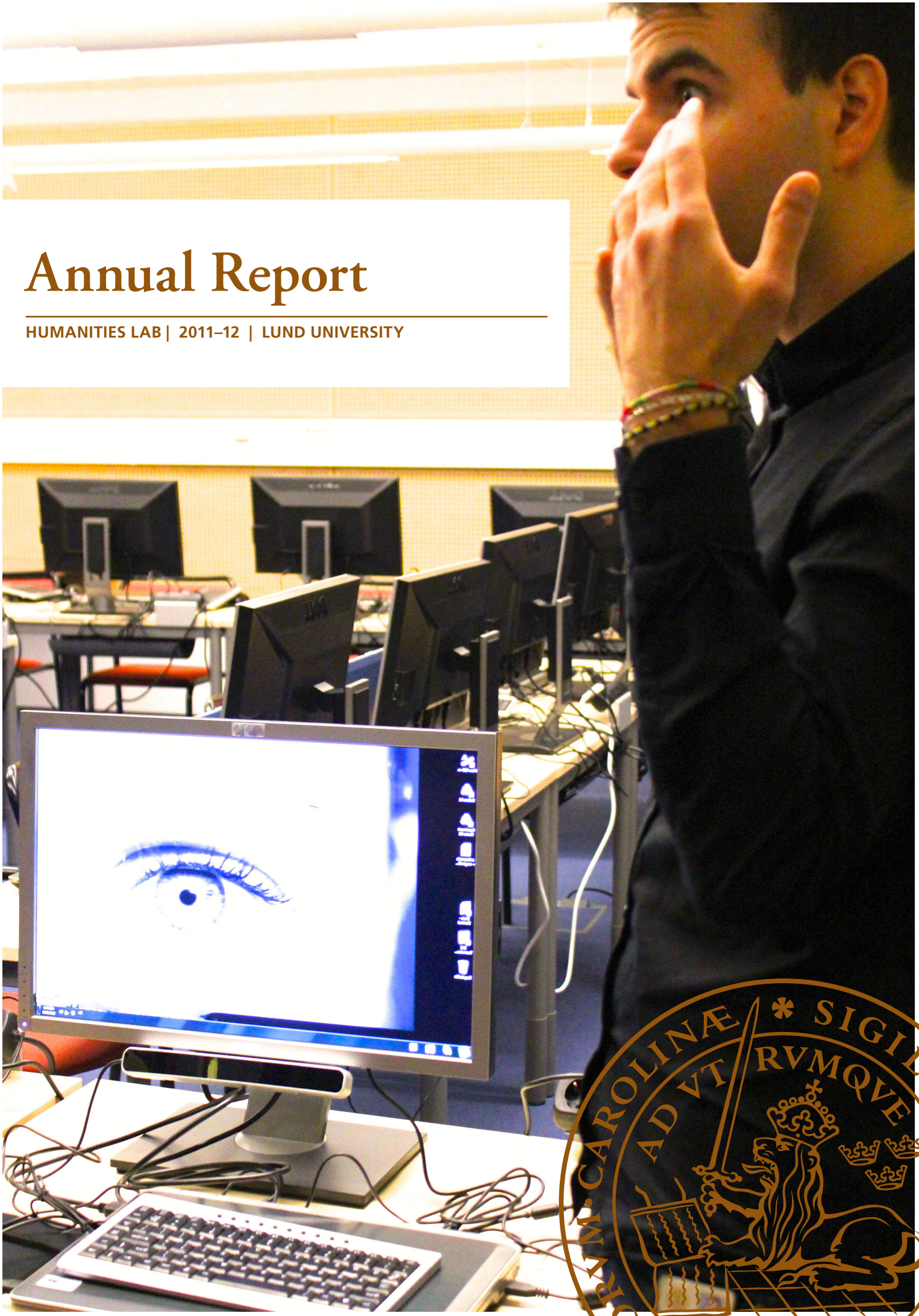
Annual Report

HUMANITIES LAB | 2011–12 | LUND UNIVERSITY



Picture taken during the ISGS5 conference, July 2012

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Annual Report for Lund University Humanities Lab 2011-2012

In 2012 the Humanities Lab continued to expand with an increase in users, externally funded new research projects, new collaborations, courses, and a string of visiting scholars. The Lab has hosted a major international conference (ISGS5), it has been implicated in training scholars at Stanford University, lectures at NASA, the development of digital archaeology and the 3D-scanning of a whole insula in Pompeii to create a virtual copy that you can walk around in to experience. A very exciting development is the inauguration of a new facility, the Digital classroom. The classroom will be the empirical home of a big new research project on learning (Holmqvist). Together with other major grants these new developments help contribute to a steadily growing emphasis on learning in Lund.

The engagement with national and international networks continues both on the academic arena and in interaction with industry. The commitment to provide training in the technologies at hand continues through a set of courses open to researchers and teachers, and to PhD students for credits, as well as a steady stream of demo sessions, method seminars, etc.

The year ahead also offers exciting challenges. The Humanities Lab is set to expand physically in 2014 when a new building for departments in the Joint Faculties of Humanities and Theology opens. The Lab will have two entirely new facilities in this building, the planning of which is in full swing. This new physical expansion promises to bring in new users and research groups to the Lab.

This annual report summarises highlights from the activities at Lund University Humanities Lab in 2012. As should be clear from its pages, the Humanities Lab continues to be a vibrant, dynamic environment enabling the Humanities and Social sciences to meet the scientific challenges ahead to understand, explain and improve the human condition.

Marianne Gullberg
Director of the Humanities Lab
Feb. 2013

Introduction

Lund University Humanities Lab is a research infrastructure and training facility financed by the Joint Faculties of Humanities and Theology (JFHT) at Lund University. It is open to scholars, teachers and students at these faculties but also to actors across Lund University campus and beyond. It operates in three areas. We provide access to research technology and innovative methods. We provide training in these technologies and related methods through long and short courses, seminar series, and guided demo sessions. We are also an arena for collaboration between academia and external stakeholders in education and industry. This interaction manifests itself in the building of long-term partnerships with the educational system such as secondary schools, and in the joint development of hardware and software solutions, the development of standards, and in networking widely on issues of research infrastructures, data storage and processing.

Facilities

Significant additions were made in 2012 to the Lab's research infrastructure. The so-called Digital classroom was inaugurated in November. This is a full-scale classroom lab equipped with 25 eye trackers at each student seat. It is financed by generous grants from the Knut and Alice Wallenberg Foundation and by Lund University's former Committee for Research Infrastructure. This new facility will for example be the empirical home of a new project on learning in a digital environment (Holmqvist). The facility is of strategic importance to the Lab and to Lund University through its emphasis on learning, reinforcing inter-faculty, national and international links to programmes and developments in interdisciplinary research on learning and development, education, teacher training, etc.

Research

The Humanities Lab expanded significantly during 2012 as a result of external funding. Currently, the Lab has about 35 employees and 100 users from all faculties at Lund University and also beyond. The Lab will continue to expand in 2013 due to new large-scale funding.

Research in the Lab is of two kinds. Most research in the Lab is conducted by scholars whose research grants and research groups are located in their home departments. They come to the Lab to use its equipment to conduct the empirical part of their studies. Examples of such user groups are scholars working in two large-scale inter-faculty research centres: the Linnaeus Centre *Thinking in Time: Cognition, Communication, Learning* (CCL, financed by the Swedish Research Council) and the *Centre for Cognitive Semiotics* (CCS, financed by Riksbankens Jubileumsfond). Many smaller externally funded research projects use the Lab in the same way (see e.g. the official research data base of the Joint Faculties of Humanities and Theology http://www.ht.lu.se/forskning/forskningsdatabas/. Note that this database does not exhaustively list all the projects in the Lab since projects administratively situated outside the JFHT are not listed).

The Lab also hosts externally funded research projects of its own with grants and research groups located in the Lab. Currently, the lab has three such large-scale projects with affiliated members: an ERC project entitled *Landscape, cognition, landscape* (LACOLA, Burenhult); a major collaborative project between Lund, Stanford and Umeå Universities as part of a Wallenberg Network Initiative entitled *Culture, Brain, Learning* (Strömqvist, Heller, Gullberg, Smith), funded by the Knut and Alice Wallenberg Foundation; and a new project called *EyeLearn: Using visualizations of eye movements to enhance metacognition, motivation and learning* (Holmqvist), funded by the Marcus and Amalia Wallenberg Foundation. Another large project will start in 2013 based on a so-called Wallenberg Scholar grant on *Embodied bilingualism* (Gullberg) funded by the Knut and Alice Wallenberg Foundation.

The eye movement unit continues its successful work. There is new postdoctoral staff (Mulvey) as part of an externally funded ISO standardization committee for data quality measurement from the eye-tracking equipment. Members have also been instrumental in the formation of the *Eye Movement Researchers' Association* (EMRA), of which Holmqvist is president. The unit has developed two new detection algorithms that hardware manufacturers implement and

which will be used in labs worldwide (Andersson, Holmqvist, Larsson, Nyström). This work is partly conducted in cooperation with the Engineering Faculty at LU through a joint doctoral student (Larsson). As part of these international networks, the unit plans a large-scale comparative data quality study in 2013, with more than 500 participants testing as many eye trackers as possible. The Lund Eye Tracking Academy (LETA) offers training twice a year to an increasing number of participants from around the world.
Scholars in the unit have also offered courses in eye tracking at Stanford University in 2012, partly built around a textbook on eye tracking methodology published by Oxford University Press in 2011. In 2013, the group will host the world's leading eye movement conference, ECEM 2013. A new research project (Holmqvist) will exploit the new facility, the Digital classroom, and build bridges between education, training, science and research using eye-tracking to study students' information processing, teachers' immediate feedback on students' visual attention, and the effect on learning. The work thus has important connections to the new LU Department of Education at Campus Helsingborg. The unit has also been awarded a so-called Advanced Study Group at the Pufendorf Institute for Advanced Studies (Holsanova). New collaborations have been initiated during the year between different members in this unit on the study of mental imagery (Dewhurst, R. Johansson), and the training of eye movements in pupils with dyslexia (Nyström, Dewhurst). Members are also involved in the Wallenberg project *Culture, brain, learning*, specifically working with the Stanford group on clinical interventions for cognitive deficits in Down syndrome (Mulvey).

Work using electrophysiological measurements of brain activity continues to grow. The Lab has expanded its course activities and developed a new practice-oriented methodology course in EEG (Borgström, Lindgren) in order to meet the growing demand from students. New research projects exploiting this technology includes a study of how adult second language speakers of Swedish understand and process Swedish word orders when they themselves produce ungrammatical word orders (Gullberg), or how Swedish word intonation interacts with grammar in understanding (Horne, Roll). The cooperation project between Lund and Stanford, *Culture, Brain, Learning*, has a substantial electrophysiological component which will involve both new staff (three postdocs) and new studies during 2013. New projects in the Linneaus centre CCL also aim to combine EEG with eye-tracking to study memory and thinking. The presence of a guest professor at the Centre for Languages and Literature (Shtyrov) in cooperation with the project *Humanities and Medicine* (Horne) will also boost the user base significantly in 2013-2014. To meet these challenges, the Lab has launched regular EEG user meetings for discussions of equipment, method, and research, and improvements have also been made to the physical setup of the infrastructure (Andersson, members of LU Nano consortium).

Work using 3D scanning and Virtual Reality (VR) techniques continues to expand, partly due to the very successful method development done in collaboration with the Dept. of Design Sciences at the Faculty of Engineering and the Dept. of Archaeology and Ancient History, with immediate application in current research (Lindgren, Larsson, Dell'unto). The work focuses on the collection of digital data in the field of cultural heritage. Lab members have established national collaborations (e.g. with museums and cultural institutions such as Lund Cathedral, Uppåkra Archaeological Centre, and the Swedish Museum of Historical Antiquities). Some of the work has international ramifications, such as the cooperation with the Swedish excavations at Pompeii where the unit has been 3D-scanning an insula in its entirety, creating digital material that will be shown at an exhibition in Stockholm 2013. Other international collaborations include Ny Carlsberg Glypotek, Copenhagen (a co-supervised student), 3D-documentation in the Çatalhöyük excavation in Turkey, and the digital documentation of caves in Belize with remains from different

Mesoamerican cultures.

The use of motion capture is gradually increasing. The Linneaus Centre CCL uses motion capture in the context of virtual reality to build virtual language users who are talking and gesturing (Gulz, Haake, Gullberg). The aim is to experimentally study the contribution of gestures to understanding and learning in typical and atypical language users. Pilot data has been exploited in a joint Masters course in Cognitive science and Engineering (Gulz, Haake). Recordings have also been made of Czech Sign Language in a partnership that aims to build a Sign Language dictionary. Furthermore, there is cross-fertilization with VR projects that also use the system to put life into virtual characters by recording real people's movements and then manipulating them digitally, such as the so-called *Kivik Tomb- Digital Project* (Lindgren, Larsson, Ljungar-Chapelon).

The acoustic unit in the Lab has a steady user base working with data collection, analysis and education. The anechoic chamber has been used in the training of how to make sound recording, vocal communication and voice treatment, and the production of educational materials (e.g. pronunciation exercises), and auditory research stimuli and materials for phonetic analysis. The articulograph has been used in data collection both within the Linnaeus Centre *CCL* and in individual research projects such as *Exotic Vowels in Swedish* (Vokart; Schötz) which examines how Swedish vowels are articulated. The recruitment of a programming assistant has meant significant progress in the development of analysis tools and better coaching opportunities. The unit is also involved in new cross-disciplinary projects on compound word accentuation in Estonian Swedish (Schötz).

Other activities that have gained momentum includes the combination of eye movement measurement and keystroke logging technology to study the writing process (externally funded project, V. Johansson), computational experimentation to measure reaction times (van der Weijer), computer-based analysis tools for video data (Andersson), etc. New projects and post-docs in the Lab connected to Gullberg's work on language acquisition and bilingualism with expertise in behavioural and neurocognitive aspects of language processing (Tutunjian, Andersson), language acquisition (Sayehli), and multimodal analysis of human interaction (Graziano) add to the broad set of skills. Their presence has also affected the student flow. Finally, Burenhult's projects *LACOLA* and *Repository and Workspace for Astroasiatic Intangible Heritage (RWAAI)* have also expanded during 2012, with data being collected from languages such as High Alemannic (Germanic, Switzerland; Huber), Jahai (Aslian, Peninsular Malaysia; Burenhult), Lokono (Arawakan, Suriname; Rybka), Makalero (Papuan, East Timor; Huber), and Övdalian (Germanic, Sweden; Ahlner); Data collection has focused on the linguistic representation of landscape and involved innovative use of GIS technology for recording, analyzing and presenting meaningful aspects of landscape in each setting.

Research Support

Lab staff continues to support research in the form of consultations and guidance both internally and externally on such diverse topics as the development of analytical tools to manage temporal data in conversation, video conferencing, how to use motion capture, how eye-tracking can be used in media studies, and corpus analysis in theology (see p. 18).

The Lab also provides continuous methodological and statistical guidance for research projects within and outside the lab, occasionally including programming. The Humanities Lab has an ongoing collaboration with researchers at the Engineering faculty on signal processing to further enhance the programming and data analysis support. Within our ongoing collaboration with *Lunarc* under the heading of the strategic research domain *eScience* we also continue to explore solutions for data processing and storage. In 2012 staff has also upgraded our corpus server through courses at the Max Planck Institute for Psycholinguistics (MPI), The Netherlands. Their participation has been sponsored by the MPI and CLARIN (Common Language Resources and Technology Structure).

Two projects are connected to this work by combining linguistic data with audio, video, and GIS data. They aim to create state of the art digital and multimedia archive environments. Burnhult's projects *LACOLA* and *Repository and Workspace for Astroasiatic Intangible Heritage (RWAAI)* have both contributed through field data. RWAAI aims to build the world's first data collection for research on the endangered Austroasiatic languages and cultures in Southeast Asia and India. Together, the projects form the basis for an innovative resource which connects to the CLARIN network (see Annual Report 2011 and below under National and international collaborations). They work towards full interoperability between individual corpora creating innovative networks. Optimal data management and accessibility for researchers, students, the public and the relevant language communities are made possible thanks to customized cataloging, search and retrieval systems.

Discussions have also been initiated to set up a Digital Cultural Heritage initiative linkingdifferent data types processed in the Humanities Lab to key stakeholders across the joint faculties (archeology, linguistics, etc.).

Training

The Humanities Lab has expanded and consolidated its training activities, motivated by the goal to facilitate and enable interdisciplinary, intra- and inter faculty research, and increase access to the technological resources that require advanced methodology skills. The Lab offered nine long and short courses on different topics.

The Lab offers long courses to PhD students and senior scholars in the Joint Faculties from across campus at Lund University and also from other universities. In 2012 curricula were revised and procedures were established for awarding credits also to MA students taking the courses. The course activities also involve in supervision (PhD students, master's students and bachelor students).

We have also expanded the range of courses with a practical short course in EEG methodology, an advanced course in statistics, and a new long course in experimental design. There is also a continued demand for shorter course elements on topics such as Animation of 3D characters, Programming in E-Prime for reaction time experiments, How to transcribe in CLAN, Statistical correspondence analysis, and How to make video recordings. Lund Eye Tracking Academy also offers intensive courses in eye tracking with many international participants.

Staff in the Lab have also participated in the development of courses held at other LU departments. For example, Lab members have successfully developed and implemented a course in Digital Archaeology in collaboration with the Department. of Archaeology and Ancient History, in Humanistic Informatics at the Department of Cultural Sciences, and in sections of the Centre for Languages and Literature. Finally, Lab staff has also taught outside Lund University in 2012, for example, giving courses in eye tracking at Stanford University.

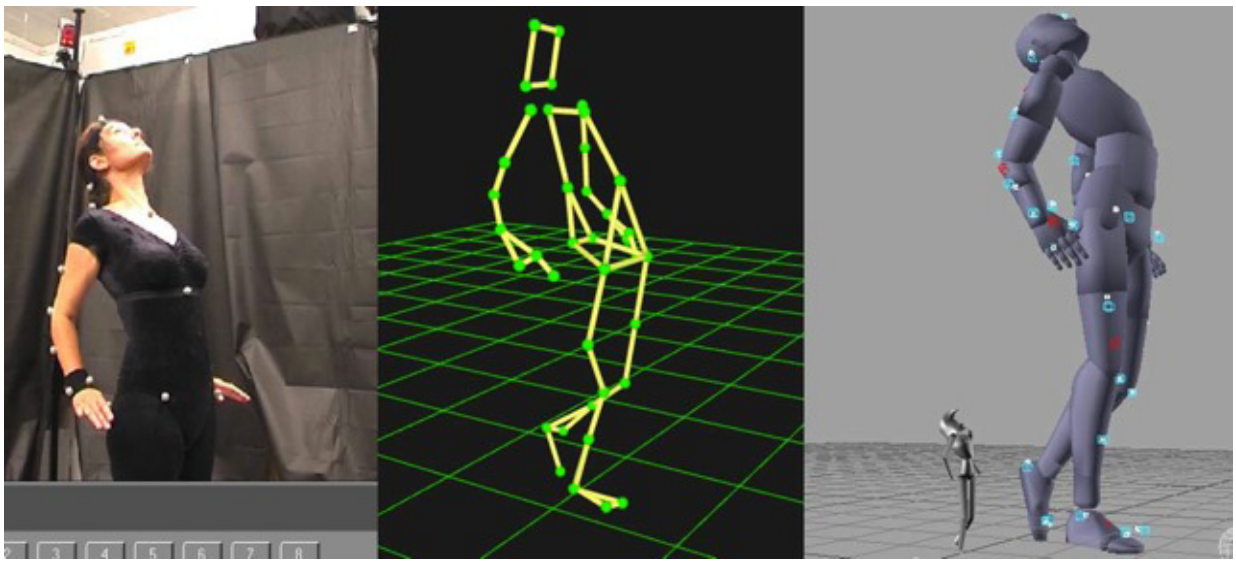
National and International Collaborations

Lund University Humanities Lab and its members have wide national and international networks and collaborations. The Lab continues to be involved in technical collaboration with manufacturers of eye tracking equipment and articulography. In a similar vein, Lab members provide advice to other labs nationally and internationally with regard to the setting up of new labs and to standards of eye movement measurements, 3D scanning, motion tracking, etc. Lab staff play a key role as founding members of standardization committees for research topics, etc.

The Lab is a co-applicant or Swedish member in a number of large national and international projects and funding applications. At the international level, the Lab is part of a joint project between Lund, Stanford, and Umeå Universities, a Wallenberg Network Initiative (*Culture, brain, learning*), funded by a grant from the Knut and Alice Wallenberg Foundation. This initiative promotes the exchange of technology and methodological expertise across all three universities, as well as technological compatibility. Researchers from the three universities collaborate on research projects in three domains: Narrative, Reading, and Improving learning. The Lab is connected to a European partner in the domain of language technology, The Language Archive at the Max Planck Institute for Psycholinguistics. The Humanities Lab corpus server is linked to this archive and hosts a collection of fully documented and freely available multimodal language data, part of a much wider network of similar resources. The Humanities Lab is also a partner in a number of international centers such as the *Centre for Multilingualism in Society across the Lifespan,* Oslo, and the *National Centre for Reading and Educational Research,* Stavanger, Norway.

The Humanities Lab acts as the only Scandinavian partner in two networks concerned with multilingualism, training and exchange of laboratory environments and disciplines. The Network *PIRE: Bilingualism, mind, and brain: An interdisciplinary program in cognitive psychology, linguistics, and cognitive neuroscience*, funded by the NSF in the USA under the direction of Prof. J. Kroll, Penn State, includes nine other universities worldwide. The collaboration has already led to two students from the United States visiting the Lab for 9 weeks of data collection. A second network is an *AHRC Skills development for language research and teaching in a multilingual world,* financed by the UK Arts and Humanities Research Council under the leadership of Dr. M. Seyfeddinipur. This network connects Lund to the School of African and Oriental Studies at University College London and the ESRC Centre for Bilingualism Studies, Bangor University. Lund and Bangor provides methodological training, and London gives students opportunity to visit field sites in non-European multilingual environments in Africa. Lund students also participate in a series of workshops held in London, funded by the network.

At the national level, the Lab is a participating partner in *eSSENCE*, a national strategic research program in e-Science (http://essenceofescience.se/) involving the universities of Uppsala, Lund and Umeå. The enterprise focuses on the development of tools for handling, storing and retrieving research data in digital form. The Lab co-supervises a doctoral student (Larsson) and a postdoc (Andersson) with the Engineering faculty through this scheme. The Lab is also linked to *Lund Bio-Imaging Centre* in this network, working on data flow, large databases, heavy data computation, and data visualization. The Wallenberg Network Initiative, which connects the lab to Umeå and Stanford, further contributes to link the Lab to HUMlab Umeå and work with so-called digital humanities.



The Humanities Lab has also initiated collaborations with a national graduate school for *Foreign Language Didactics (FRAM)*, based in Stockholm. The Lab will host a graduate level course on Information and Communication Technology in foreign language teaching in the spring of 2013.

The strong focus on learning can also be seen in a new collaboration with *Forskningsnätet Skåne* (http://www.forskningsnatet.se), a network of secondary schools in the region of Scania. Researchers from the Lab work with classes as 'in-house-scientists' during an academic year, in order to engage teachers and pupils in research. Projects to be initiated in 2013 include work with a French pronunciation program, and the use of eye-tracking during physics lessons to study how visual and textual information is integrated by students.

The Humanities Lab has hosted numerous visiting scholars from the Netherlands, the UK, Germany, USA, South Africa, etc., for both short term (a week) and long-term stays (a few months); see page 19. These visiting scholars contribute to the environment by generously giving guest lectures and engaging in scholarly exchange with the whole environment.

Lectures, Workshops, Symposia, Conferences

In 2012, Lab members organised and hosted *The Scandinavian Workshop on Applied Eye Tracking* at Karolinska Institutet (co-organizer), a symposium at the *Advanced Study Colloqium 2012 (ASC2012)* in the Netherlands, a *Workshop on methods for the recording, playback and evaluation of visual interpretation,* an international *ESF Exploratory Workshop* entitled *Conceptualising European landscapes across languages, cultures and disciplines* in Spain, and hosted the *Fifth Conference of the International Society for Gesture Studies (ISGS5): The communicative body in development*, an international conference with about 250 participants from all over the world. Members of Virtual Reality unit also co-hosted the *Universitas21 conference* focusing on Digital Humanities and especially Digital Cultural Heritage held in Lund in September 2012. The Lab has been represented in the Universitas21 network since its inception in Virginia in 2008, playing a central role for so-called Digital Humanities. For a complete list of these activities, please see page 11.

Lab members regularly give invited talks about their own research, about methodology, and about the Lab both within and outside Lund University. In 2012 Lab members have for example given talks at NASA, Stanford University, the Max Planck Institute for Psycholinguistics, etc.

Visibility and Accessability

Physical accessibility to the lab has improved significantly in 2012 through an upgraded online booking system of lab space and equipment.

The Humanities Lab organizes a wide range of events and demos, often with concrete demonstrations of ongoing research and hands-on elements for participants (38 tours and lab demos during 2012 for national and international visitors). Visitors to such events include the Swedish Parliamentary Committee on Education, the Advisory Board of the Linneaus Centre Thinking in Time, representatives from the Universitas21 network, scholars and research groups from the Max Planck Institute for Psycholinguistics, Stanford University, etc. The Humanities Lab also participated in local open events such as the popular *Humanities Days (HT-dagarna)* organized by the Joint Faculties of Humanities and Theology, Lund City's annual *Night of Culture*, and interdisciplinary events such as *Innovation in Mind*.

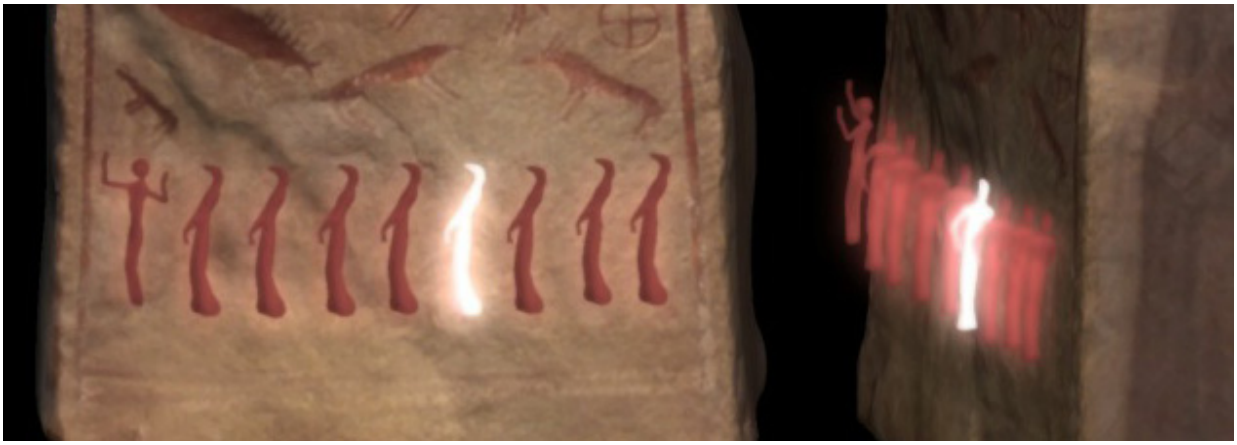
We continued our program of introductory tours and demo sessions aimed at undergraduate and postgraduate programs but also new Lund University employees.

The Lab has further organized a number of seminars on methodology (e.g., eye-tracking, statistics) that are open to all. Invited talks in various contexts given by lab members also showcase Lab activities and technologies.

The Lab web site has improved in terms of functionality (information on policies, user agreements), and in terms of news coverage, blog activities. You can now take a virtual walk through the lab on the web site (http://www.humlab.lu.se/home/lab-tour). We have established a YouTube channel and increased the Lab's presence in social media like Facebook and Twitter. Printed promotional materials are now available both in Swedish and English.

Finally, the Lab is engaged in issues of data accessibility, storage, and long-term management of research

data. First, we collaborate with the strategic research domain eScience-eSSENCE and the computational centres at Lund University to develop server and access systems suited to sensor instruments and data types gathered in the Lab. Second, in collaboration with The Language Archive at the Max Planck Institute for Psycholinguistics, we offer secure, long-term storage of structured digital, mainly linguistic, research data. Furthermore, this resource can function as a digital collaborative workspace, where a group of researchers can download, edit, and upload data and metadata. This latter effort is also being incorporated into the ongoing work with eSSENCE, bringing other data types to bear on server and access solutions.



Events and Activities 2012

The following pages list activities during 2012. For a list of publications, please visit http://www.humlab.lu.se.

Organisation of Conferences, Workshops and Symposia

2012-05-01
Conceptualising European Landscapes Across Languages, Cultures, and Disciplines
Magalia Castle, Las Navas del Marqués, Spain
Niclas Burenhult

2012-05-05
SWAET 2011 The Scandinavian Workshop on Applied Eye Tracking
Karolinska Institutet, Stockholm
Kenneth Holmqvist et al

2012-07-24
The Fifth Conference of the International Society for Gesture Studies (ISGS5): The communicative body in development
Lund University, Lund
Marianne Gullberg et al

2012-08-14
Syntolkningsworkshop II. Metoder för inspelning, uppspelning och evaluering av syntolkning
Centre for Languages and Literature, Lund University
Jana Holsanova, Alexander Strukelj, Nils Holmberg

2012-09-07
EARLI AC2012
Educational psychology, Heerlen
Kenneth Holmqvist and Richard Dewhurst

2012-09-19
3rd U21 Digital Humanities Workshop
Lund University, Lund
Stefan Lindgren and Maja Petersson

2012-11-08/09
The use of visualizations and technology in the Digital Classroom
Lund University, Lund
Jana Holsanova, Alexander Strukelj and Kenneth Holmqvist

Lab Demos

During 2012, the lab hosted 38 lab demos.

The lab hosted demos for international visitors such as the U21 Research Leaders Group, the US Ambassador, researchers from Max Planch Institute for Psycholinguistics (Netherlands), Berkley, Penn State University, Stanford, San Diego (USA) and from Lodz Univeristy (Poland), University of Basel (Schweiz) and Ben Gurion University (Israel).
The Lab also hosted demos for research groups from national networks such as the Linneaus environment HEAD, the Light Initiative and Forskningsnätet Skåne and staff and students from different departments both within and outside Lund University. Demos were also held for the Governmental Committee for Education and the Lund university Board.
In addition, lab demos were held for teachers and children from differents schools in Sweden, ranging from pre-school to upper secondary level.
For the general public, demos were held during the faculties open event *HT-days*, the conference *Innovation in Mind*, the Lund City event *Culture night* and also the event *Uppåkradagen*.

Training

The lab offers courses, ranging from 2 hour short courses to courses that accredit students with 7,5 higher educational credits. Staff from the lab are also often invited as guest lecturers in courses within and/or outside the university. During 2012, the lab completed the following:

Long courses:

- Experimental design
- Eye-tracking
- Statistics I and II
- ERP Research Methods

Short courses

- Basic audiorecording
- Introduction to Praat
- Transcription with CHAT (beginner and advanced)
- Coding and analyses with CLAN (beginner and advanced)
- ELAN: coding and analyses

Also, staff from the lab taught an Eye Tracking course in Stanford, USA, and Lund Eye Tracking Academy (LETA, a one-week intensive course) in Lund.

Lectures on topics such as:

- Metadata and language corpora
- Electro Glottography with the BioPac system
- Statistics for corpus linguistics
- 3D scanning and postprocessing
- Unity gameengine
- Matlab programming
- 3D- modelling
- Use of Word
- Inkscape
- GPS and camera lab
- Videorecording

Consulting

The lab also offers consultations on programs, technology, and analysis. Below is a list of 59 consultations ‘both inside and outside Lund University during 2012.

- Audio digitizing #3
- Audio recording #1
- BioPac #1
- CLAN #3
- Consulting regarding projects and collaborations #2
- Deposition and storage of corpus meta data #3
- Digital context #1
- E-prime #4
- Equipment for online teaching #1
- Eye tracking recording and analysis #5
- Experimental design and implementation #3
- LaTex #1
- Motion Capture recording #2
- Statistic analysis #15
- Transcription #1
- Vector imaging #1
- Video annotation software #1
- Video conference support #1
- Web data mining #1
- Video format #2
- Video editing#2
- Video recording #3
- Writing Coding (Script Log) #2

Collaborations

Skånes hembygdsförbund, Degeberga hembygdspark
Visualizing cultural heritage
3d-scanning 18th centrury house in Degeberga

Skånes hembygdsförbund, LUHM, VR-lab IKDC, Department of Archaeology and Ancient history, , Lund University
Uppåkra Project

Istituto di Scienza e Tecnologie dell'Informazione (ISTI) at CNR (National research Council of Italy) and the Department of Archaeology and Ancient history, Lund University
3d-scanning of the Swedish Pompeii excavation

Istituto di Scienza e Tecnologie dell'Informazione (ISTI) at CNR (National research Council of Italy) and Lunarc, Lund university
Developing Meshlab and Lunarc

Riksantikvarieämbetet and Department of Archaeology and Ancient history, Lund University, Domkyrkoforum, Lund
Cathedral Project

Dept of Archaeology and Ancient history, Centre for Theology and Religious studies, Lund University
3d-scanning Dalby Church

CCS (*Centre for Cognitive Semiotics*) Department of Psychology, Lund University
Kuleshov project

Dept of Archaeology and Ancient history, Centre for Theology and Religious studies, Lund University
3d-scanning Dalby Church

Skånes hembyggdsförbund, Department of Design Sciences, Apphaus, Craze Music
Developing the Uppåkra app

Forskningsnätet Skåne
Project An in-house researcher in school

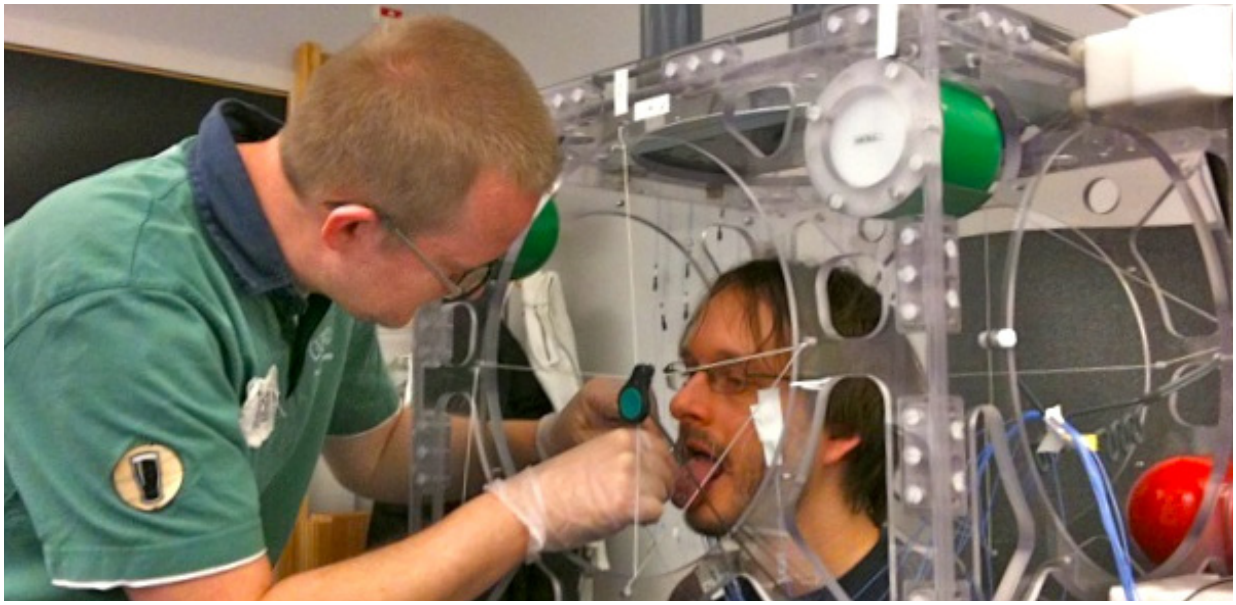
Malmö 1692, VHM (Virtuella historiska modeller)
3d-scanning of buildings in Malmö

Max Planck Institute for Psycholinguistics, Nijmegen, Netherlands
Several projects including IMDI Corpus server administration

University of Merced, Las Cuevas Archaelogical reconnaissance
3d-scanning Mayan cave
Belize

Nationell forskarskola FRAM (Stockholm University, Lund University)
Joint Course: Information and Communication Technologies – Teaching and Learning Languages

Stanford University
Wallenberg Network Initiative: Culture, brain, learning



Skriv- och läscentrum, Helsingborg
Eye movement training and reading performance in dyslexia

eSSENCE, Lund, Umeå, Uppsala Universities
Processing and assessment tools for event detection in eye movement data

Centre for Languages and Literature, Linguistics, Lund University
Participation in the Arawak project

Riksantikvarieämbetet, Department of archaeology, Pontifical Institute of Christian

Archaeology in Rome
3D documentation, Lateran Baptistery in Rome

Vattenhallen Science Center, Lund University
Visualization game for Max IV and ESS

Logopedics, Phoniatrics and Audiology, Lund University
Developing collaboration regarding speechreading and clinical groups

The Museum of History, Stockholm
3D-scan and motion capture, Visby 1361

Conference Presentations

2012-03-01
Testing the putative compensatory role of gestures during expressive difficulties: evidence from child and adult language learners' discourse
VII GSCP International Conference: Speech and Corpora - Feb 29-Mar 02
Belo Horizonte- Brazil
Maria Graziano & Marianne Gullberg

2012-03-19
Understanding communicative signs by children and chimpanzees
Tokyo Evolutionary Linguistics Forum
Tokyo
Susan Sayehli

2012-03-22
Eye tracker data quality: What it is and how to measure it
ETRA 2012
Santa Barbara
Kenneth Holmqvist

2012-05-02
Accuracy of fast, post-saccadic eye movements recorded with pupil-based eye trackers is influenced by relative motion between the pupil and the iris
SWAET
Stockholm
Marcus Nyström

2012-05-02
The effect of task difficulty on eye movement sequences in multiple dimensions
SWAET 2nd - 4th May
Karolinska Institute
Richard Dewhurst, Marcus Nyström

2012-05-03
Text reading during noise exposure: effects on eye movements and galvanic skin responses
SWAET 2012
Stockholm
Alexander Strukelj

2012-05-03
An Alemannic landscape: spatial description in a Swiss German dialect
Conceptualising European Landscapes Across Languages, Cultures, and Disciplines, 2. - 4. May 2012
Las Navas del Marqués, Spain
Juliette Huber

2012-05-24
Proper-name identification
Speech Prosody
Shanghai
Joost van de Weijer

2012-05-30
A phonetic pilot study of vocalisations in three cats
Fonetik 2012, May 30 - June 1 2012
Göteborg
Susanne Schötz

2012-05-31
South Swedish diphthongisation: an articulographic and acoustic study of /u:/ in the Malmöhus dialect
Fonetik 2012, May 30 ? June 1 2012
Göteborg
Johan Frid, Susanne Schötz

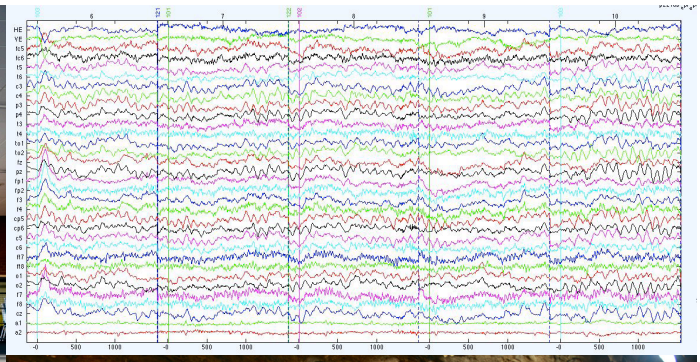
2012-05-31
A comparative study of kinematic and acoustic age? related variability in speech
Fonetik 2012, May 30 ? June 1 2012
Göteborg
Susanne Schötz, Johan Frid

2012-07-25
The rhetoric nature of asynchrony between speech and gesture. Evidence from monolingual and bilingual speakers.
M Graziano, P Marentette

2012-07-05
The quantifier hau in Makalero
ICAL 2012, July 2-6 2012
Denpasar, Indonesia
Juliette Huber

2012-08-16
An acoustic study of accentuation in Estonian Swedish compounds
Nordic Prosody XI, Tartu University, August 15?17
Tartu
Susanne Schötz & Eva Liina Asu

2012-10-04
Detection of saccades and glissades in eye-tracking signals
eSSENCE
Lund
Kenneth Holmqvist



Invited Talks and Guest Lectures

2012-03-23
Microlectures
HT-dagarna,Centre for Languages and Literature, Lund University
Lab staff

2012-03-23
Speakers gesture while they talk, not when they have trouble speaking
HT-dagarna,Centre for Languages and Literature, Lund University
Maria Graziano and Marianne Gullberg

2012-10-03
Implicit agent activation in short adjectival vs. verbal passive constructions
English linguistics research seminar, Centre for Languages and Literature, Lund University
Damon Tutunjian and Marianne Gullberg

2012-04-11
3D-skanning av kulturarv - exemplet Pompeji
Digitala kulturmiljöer/Skånes hembyggdsförbund
Hässleholm kulturhus
Stefan Lindgren

2012-04-12
Eye movement data to assess cognitive and emotional processes
ETVCE 2012, International Conference on Eye Tracking, Visual Cognition and Emotion
Lisboa
Kenneth Holmqvist

2012-05-30
The use and benefits of visual context information in communication
Max Planck Institute for Psycholinguistics
Nijmegen, Netherlands
Richard Andersson

2012-06-13
Eye tracking research at Lund University.
NASA Ames Research Center
Ames
Kenneth Holmqvist

2012-07-06
Modern technology in Archaeology
Kronobergs arkeologiska förening
Uppåkra
Stefan Lindgren

2012-11-19
Gesture in Italy
Dante Alighieri Society, Ängelholm.
Maria Graziano

2012-11-20
Language shapes the land: a cross-linguistic perspective on landscape conceptualisation
Department of Geography, University of Zurich
Niclas Burenhult

2012-12-05
Kulturarvet och dess digitala möjligheter
Lund university central administration, Kulturens hörsal
Stefan Lindgren

2012-12-03
Guest Lecture on gesture and language acquisition
Centre for Languages and LIterature, Lund University
Maria Graziano

Maintenance

The high-tech equipment in the lab requires maintenance. Activities in 2012 included:

- Replacing all computers in one computer
- Setting up license server for 3d-coat and v-ray in the Virtual Reality room
- New recording computer in the Motion Capture studio
- Wireless network in the Digital Classroom
- Changes in the EEG rooms to reduce electric noise
- Extra computer with the network license for all computers in the Digital Classroom
- 25 program licenses active in the Digital Classroom
- Moving web based annual report system to the webserver

Method Development and Training

- Chairing the international standardization committee for data quality (Holmqvist)
- Linguistics of landscape: elicitation guide
- Collaborations with Lunarc, to improve data flows
- Testing Motion builder plugin for mocap
- Photography course, to make better photogrammetry model
- Testing 3d-scanning of rockcarvings
- EEG user meetings
- Test of GPS-system with predefined coordinates as base
- Collaboratios with the Nanometer Structure Consortium to discuss electrical noise in EEG rooms

Research Grants and Awards

Kenneth Holmqvist (grant)
EyeLearn: Using visualizations of eye movements to enhance metacognition, motivation and learning
Marcus and Amalia Wallenbergs Foundation

Maria Graziano (grant)
How culture shapes gestural behavior
Erik Philip-Sörensen Foundation

Marianne Gullberg (grant)
Wallenberg Scholar 2012
Embodied bilingualism
Knut and Alice Wallenbergs Foundation

Maria Graziano (grant)
Crosslinguistic studies of gestures
Marianne Gullberg (grant)
The ability to acquire a new language implicitly after as little as 7 minutes with multilingual speakers aged 10 to 90.
Lundborgska Idofonden

Love Eriksen (award)
PhD dissertation Nature and Culture in Prehistoric Amazonia
Westrupska priset by Kungliga Humanistiska Vetenskapssamfundet i Lund (KHVSL)

Knut och Alice Wallenbergs Stiftelse

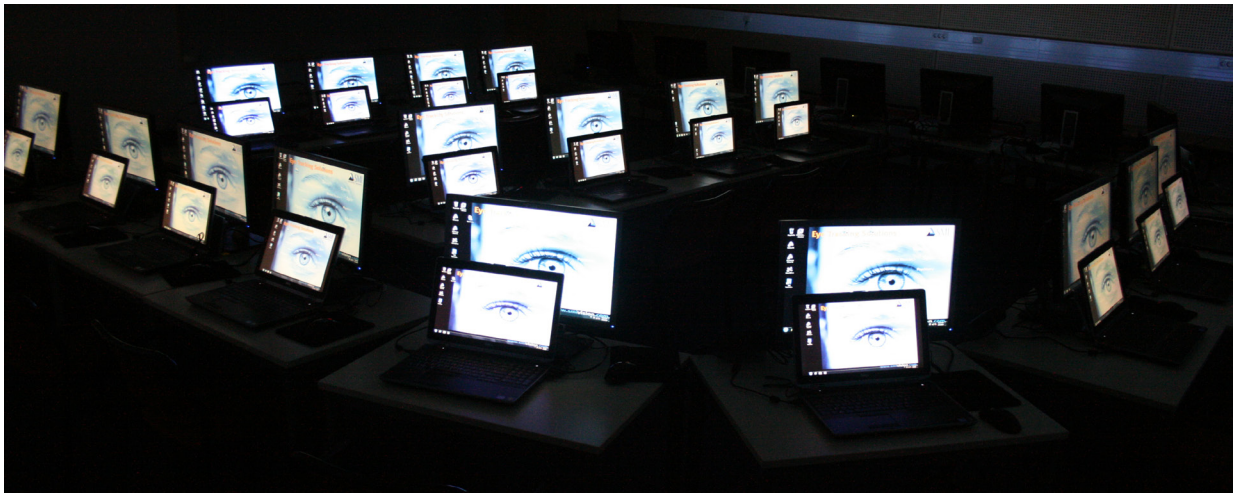
STIFTELSEN MARCUS OCH AMALIA WALLENBERGS MINNESFOND

Culture, brain, learning – a Stanford-Lund collaboration (Wallenberg Network Initiative) (Gullberg, Heller)

This joint project between Lund and Stanford University aims to improve our understanding of how the human brain learns and uses symbolic systems, and how to overcome problems in learning disabilities and cognitive impairment. The project brings together experts from the Humanities, Social Sciences, Neurobiology and Education organized around three themes: Narrative, Reading, and Improving learning.

EyeLearn: Using visualizations of eye movements to enhance metacognition, motivation and learning (Holmqvist)

The overall goal of this project is to implement a technological classroom of tomorrow, which can be used for studying, supporting and improving metacognitive reflection in pupils in Compulsory and Upper Secondary School. We develop and implement eyetracking-based tools in which we can also measure, quantify and improve learning behaviour.



Visitors

2012-01-12 - 2012-03-21
Nicole Weidinger
Clinical Neuropsychology Research München

2012-01-19- 2012-03-15
Ignace Hooge
Utrecht University

2012-02-12 - 2012-03-24
Inge Alferink
Radboud Universitet Nijmegen, MPI f Psycholinguistics

2012-02-20
Daniel Löwenborg,
Dept for Archaeology, Uppsala

2012-02-24
Karen O'Brien
Pro-Vice-Chancellor, University of Birmingham

2012-04-09 - 2012-05-25
Marlit Schmidt
IPN Leibniz-Institut für die Pädagogik der Naturwissenschaften und Mathematik an der Universität Kiel

2012-04-09 - 2012-05-25
Alexander Eitel
Leibniz-Institut für Wissensmedien, Tübingen

2012-05-05 - 2012-07-01
Elisabeth Mormer, Emma Hance
Penn State University/PIRE

2012-05-28 - 2012-06-02
Nuria Kaufmann
Institute for Multilingualism, Fribourg University

2012-05-21 - 2012-05-25
Josh Borah
ASL

2012-05-28 - 2012-06-02
Detlev Droege
Tekniska Universitetet, Koblenz

2012-07-26 - 2012-07-29
Tom Foulsham
Dept of Psychology, University of Essex

2012-09-25
Svensk Nationell Datatjänst

2012-10-08 - 2012-10-09
Anna Lenkiewicz
Max Planck Institute for Psycholinguistics/The Language Archive

2012-11-08 - 2012-11-09
Katharina Scheiter
Educational Psychology, Tübingen Universität
Tamara van Gog
Psychology, Erasmus Universiteit, Rotterdam

2012-11-11- 2012-11-14
Carrie Jackson
Penn State University

2012-11-26 - 2012-11-30
Jeff Pelz
Rochester Institute of Technology

Staff Members 2012

Felix Ahlner
PhD student

Annika Andersson
researcher

Richard Andersson
researcher

Carolina Ask
student assistant

Kristina Borgström
PhD student, laboratory assistant

Niclas Burenhult
researcher

Richard Dewhurst
researcher

Love Eriksen
researcher

Johan Frid
researcher

Kerstin Gidlöf
PhD student, laboratory assistant

Maria Graziano
researcher

Marianne Gullberg
director Humanities Lab

Lars Gustafsson
programmer

Nils Holmberg
PhD student

Kenneth Holmqvist
researcher, lecturer

Jana Holsanova
researcher

Juliette Huber
researcher

Caroline Hägerhäll
researcher

Victoria Johansson
it-pedagogue

Carolina Larsson
project assistant

Stefan Lindgren
research engineer

Fiona Mulvey
researcher

Marcus Nyström
research engineer

Azra Padjan
administrative assistant

Maja Petersson
project coordinator

Åsa Sang
researcher

Susan Sayehli
researcher

Susanne Schötz
it-pedagogue

Emelie Stiernströmer
laboratory assistant

Alexander Strukelj
student assistant

Nelly Theobald
project assistant

Damon Tutunjian
researcher

Joost van de Weijer
methodological expert

Cecilia Whitehorn
financial administrator

Viktoria Åkerlund
assistant

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