

Pointing to Gestures

Multimodal Research Training Course

4-8 August 2014
University of Tartu, Tartu, Estonia

With support from:
Graduate School of Linguistics, Philosophy and Semiotics
Institute of Computer Science
Institute of Estonian and General Linguistics
Faculty of Philosophy
The ETIS project MINT (ETF8958)

Course Focus

- ▶ Gestures and their function in natural communication
 - Important signs to
 - identify references (deictic),
 - describe speech content (iconic), and
 - coordinate the communication in general (meta-level gesturing).
- ▶ Collection and analysis of high-quality video recordings and new accurate ways to study gestures as part of the interlocutors' communicative activity,
 - give feedback,
 - maintain social bonds,
 - build a shared context.
- ▶ Automatic recognition and integration into interactive systems
 - Recognition devices, semi-automatic data analysis and visualisation techniques
- ▶ To build models for intelligent interactive agents (virtual agents, robots)

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Course Aims

- ▶ Provide an opportunity to discuss **methodological challenges** related to gesture research and data collection
- ▶ Study **multimodal interaction phenomena** related to **gesturing**
- ▶ **Multidisciplinary** approach
- ▶ **Theoretical** and **practical** point of view, including **hands-on exercises** on data analysis
- ▶ **Present own work** and get feedback, exchange ideas

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MINT, Multimodal INTeraction

- ▶ Estonian Science Foundation project ETF8958
Multimodaalne suhtlus - videoandmete kogumise, analüüsi ja kasutamise kultuuridevahelised ja tehnoloogilised aspektid (Multimodal Interaction - intercultural and technological aspects of videodata collection, analysis, and use)
- ▶ to create Estonian multimodal video corpus on various conversational activities
- ▶ to analyse and annotate the data
- ▶ to study multimodal signals, especially gesturing, in social communication and conversation management,
- ▶ to study the interlocutors' engagement and synchrony in communicative activity
- ▶ to build (computational) models for the coordination and controlling of interaction and constructing shared understanding, for the design of embodied communicative agents in computer interfaces to databases and of robots
- ▶ to investigate techniques and means for automatic recognition of multimodal signals, especially gestures
- ▶ comparative research on multimodal communication in different languages and cultures

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University of Tartu

- Second oldest in Nordic Countries
 - Founded 1632 by the Swedish King Gustaf II Adolf
- Over 18 000 students, 820 doctoral students
- Staff: 1300
- 11 faculties, 6 colleges and 3 research institutes
- <http://www.ut.ee/en>
- [Slideshow](#)
- <http://www.ut.ee/en/about-us/visitors>



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Pointing to Gestures – Course Overview

- ▶ Monday and Tuesday: lectures and hand-on exercises
- ▶ Excursion on Wednesday
- ▶ Thursday and Friday: The 2nd European and the 5th Nordic Multimodal Symposium

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Monday 4.8.2014

08:30 – 09:00 Registration

09:00 – 09:15 Kristiina Jokinen and Silvi Tenjes: *Welcome and practicalities*

09:15 – 10:00 *Lecture*: Alan Cienki and Kirsten Bergmann

10:00 – 10:30 *Coffee*

10:30 – 12:30 *Lecture*: Alan Cienki and Kirsten Bergmann

12:30 – 14:00 *Lunch*

14:00 – 15:00 *Lecture*: Jens Allwood and Elisabeth Ahlsen

15:00 – 15:30 *Coffee*

15:30 – 17:30 *Lecture*: Jens Allwood and Elisabeth Ahlsen

19:00- *Walking tour in Tartu*

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Tuesday 4.8.2014

09:00-10:30 *Lecture*: Kirstin Bergmann

10:30-11:00 *Coffee*

11:00-12:30 *Lecture*: Alan Cienki

12:30-13:30 *Lunch*

13:30-14:30 *Student presentations (20min each)*

Emer Gilmartin

Ting Han

Åsa Harvard

14:30-15:00 *Coffee*

15:00-16:30 *Lecture*: Patrizia Paggio

16:30-18:00 *Lecture*: Graham Wilcock

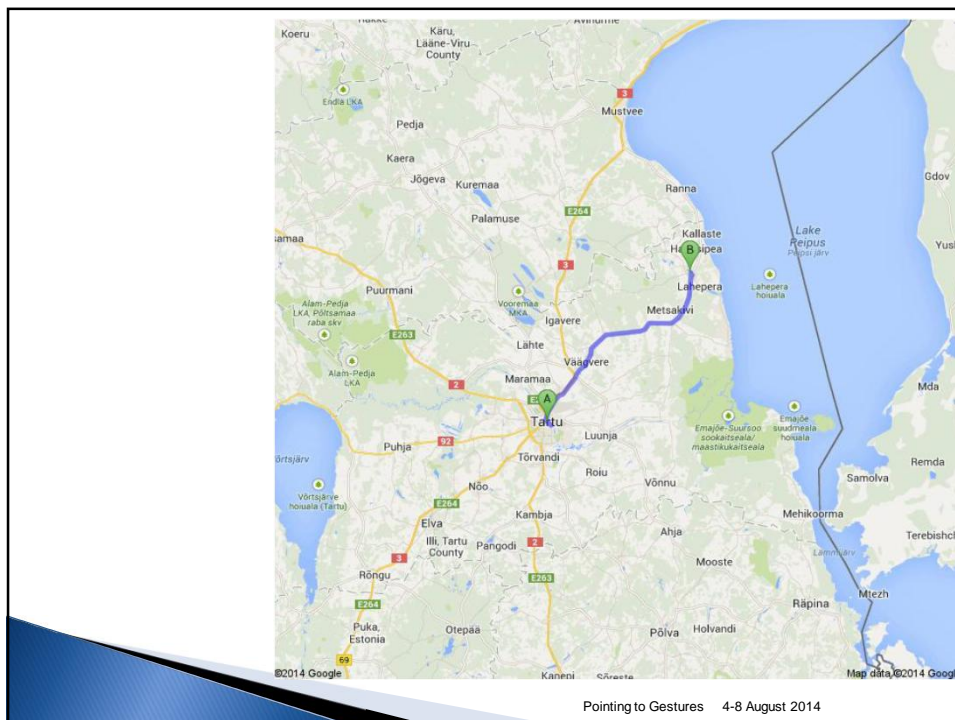
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Excursion to Alatskivi and Old Believers' village

- ▶ Wednesday 5 August 2014
- ▶ 09:00 Leaving from Jakobi 2 (symposium location)
- ▶ Alatskivi: a fairy tale castle
- ▶ Modelled after the Balmoral Castle in Scotland
- ▶ Old Believers village and church by Lake Peipsi
- ▶ Lunch at the fish-and-onion restaurant in Kolkja
- ▶ 16:00 Back to Tartu
- ▶ 19:00 Reception at Botanical Gardens



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Some practicalities

Internet

- eduroam network
- ut-public network

Meals and coffee

Reception at Botanical Gardens

Conference Dinner

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Participation certificate

- ▶ You'll get one after the end of the school
- ▶ Study points – please agree with your supervisor
- ▶ Reading list and exercise software – get familiar at the course

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The 2nd European and the 5th Nordic Symposium on Multimodal Communication

6-8 August 2014

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Thursday 7.8.2014

08:30-09:00	Registration
09:00-09:15	Welcome
09:15-10:15	Invited speaker (chair: Silvi Tenjes)
	Alan Cienki:
	The dynamic scope of relevant behaviors in talk: A look at repetitions, restarts, and elaborations
10:15-10:45	Coffee
10:45-12:45	Paper session (chair: Patrizia Paggio)
10:45-11:15	Catherine T. Bolly: Facing Nadine's speech. Multimodal annotation of emotions in the elderly
11:15-11:45	Gustaf Lindblad and Jens Allwood: An Overview of Multimodal Feedback in Swedish
11:45-12:15	Bhim Regmi and Jens Allwood: Nepali feedback - Shake your head to say yes or to show belief or happiness
12:15-12:45	Dage Särg and Kristiina Jokinen: Nodding in Estonian First Encounters
12:45-14:00	Lunch
14:00-15:30	Paper session (chair: Graham Wilcock)
14:00-14:30	Florian Nothdurft and Wolfgang Minker: Finding Appropriate Turn-Taking Strategies for Pro-Active Dialogue Systems - An Open Quest
14:30-15:00	Marcin Włodarczak, Mattias Heldner and Jens Edlund: Breathing in conversation: an unwritten story
15:00-15:30	Pihel Saatmann: Experiments With Hand-tracking Algorithm in Video Conversations
15:30-16:00	Coffee
16:00-17:30	Paper session (chair: Jens Allwood)
16:00-16:30	Elisabeth Ahlsén: Gestures used in word search episodes - by persons with and without aphaasia
16:30-17:00	Ozge Alacam, Christopher Habel and Cengiz Acarturk: Verbally Assisted Haptic Graph Comprehension: The Role of Taking Initiative in a Joint Activity
19:00-	Conference dinner

Friday 7.8.2014

9:30-10:30	Invited speaker (chair: Kristiina Jokinen) Kirsten Bergmann Gesture Use - From Virtual Humans and Back
10:30-11:00	Coffee
11:00-12:30	Demonstrations (chair: Wolfgang Minker)
11:00-11:30	Demonstration introductions (3 x 10min)
11:30-12:30	Imre Purre and Kristiina Jokinen: Speech-based Interactive Location Guide for Liivi 2 Martin Vels and Kristiina Jokinen: Recognition of Human Body Movements for Studying Engagement in Conversational Video Files Graham Wilcock and Kristiina Jokinen: Multimodal Interaction with the Nao-robot in Finnish
12:30-14:00	Lunch
14:00-15:30	Short paper session (chair: Elisabeth Ahlsen) Nataliya Berbyuk Lindström, Jens Allwood and Margareta Håkanson: Multimodal human-horse communication in therapy and leisure riding Eva Ingerpuu-Rümmel: Teacher and learners constructing meaning for vocabulary items in foreign language class Elnaz Jalilian: Spatial References in Multimodal Communication Stefano Lanzini and Jens Allwood: On the attribution of affective-epistemic states to some communicative behaviors in different modes of recording
15:30-16:00	Coffee
16:00-17:00	Closing panel

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Teach yourself Estonian in 3 minutes http://wikitravel.org/fi/Viron_matkasanakirja

Tänan / Äitah- Tack - Thank you
 Tere, Tervist - God dag, hej - Good day, hi
 Nägemist, nägemiseni - Adjö - Goodbye
 Tere hommikust - god morgon - Good morning
 Head ööd- God natt - Good night
 Head isu - Bon appetit
 Palun - please
 Kuidas läheb? - Tänan, hästi. - how are you? Fine, thanks
 Eesti keel - estniska - Estonian language;
 Ma räägi inglise keelt, aga ma ei saa aru eesti keelest. - I speak Englishbut don't understand Estonian
 Suvekool - sommar skola - summer school
 Puuvilja - frukt - fruit
 Minu nimi on Lisa- Mitt namn är Lisa - My name is Lisa
 Avatud / suljetud - Oppet/stängt - Open/closed
 Jaa, jah/ei - Ja/nej - Yes/no
 M/N (mees/naine) - Herrar/damer - Men/women
 Üks, kaks, kolm, neli, viis, kuus, seitse, kaheksa, üheksa, kümme, üksteist, kakskümmend - 1,2, 3, 4, 5, 6, 7, 8, 9, 10, 20
 esmapäev, teisipäev, kesknädal/kolmapäev, neljapäev, reede, laupäev, pühapäev. - Monday, Tuesday,
 Väljapääs- Ut - Exit
 Ülikooli - Universitet - University

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