TAL SOBOL SHIKLER, PHD

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Education

2011-2012	Merage Foundation Entrepreneurship in the Negev Program
2008-2011	Post-Doctorate, Deutsche Telekom Labs @ BGU Projects: Adaptive menus; Graded Security for mobile phones
2007-2009	Post-Doctorate, Industrial Engineering & Management, Ben-Gurion University Title: 'Human-robot collaboration & human-computer interaction'
2002-2007	PhD, Computer Science & Technology, University of Cambridge, UK Dissertation title: 'Le Ton Fait la Musique: Analysis of Expressions in Speech'.
2000-2002	Electrical & Computers Engineering, Tel Aviv University, Israel Advanced graduate studies (grade: 95)
1994-1996, 1999	MSc, Electrical Engineering, Tel Aviv University, Israel Thesis title: 'Adaptive Scheduler for Local Area Networks Based on Fuzzy Logic' (grades: thesis 90, MSc 85)
1989-1993	BSc, Electrical Engineering, Tel Aviv University, Israel (grade: 82)
1988-1989	Technion, Israel 1st year, studies to BSc in Architecture

Patents

US Patent - AFFECT PROCESSING SYSTEMS IN SPEECH - 2007

PCT Application- SPEECH AFFECT ANALYZING AND TRAINING SYSTEM - 2012

Awards

2008-2011

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2007-2009	VATAT Scholarship, Council for Higher Education
2008	ESF-JSPS fully funded conference
2004	ISCA Grant
2004	AAUW Educational Foundation - International Fellowship
2003-2004	Cambridge Overseas Trust Fellowship
2003-2004	Computer Laboratory Scholarship, University of Cambridge
2002-2004	Girton College Scholarship, University of Cambridge
2000-2002	Council for Higher Education Scholarship for High Technology Research
1999-2002	Tel Aviv University Scholarship
2000	1st prise; Lea Lavie Competition; Signal Electronics & Computing Corps (For MSc thesis)
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Deutsche Telekom Labs @ BGU, Post-Doctorate Fellowship

Publications

- *T. Sobol-Shikler, 'Inference of co-occurring classes: Multi-class and multi-label classification',* Computational Intelligence Paradigms in Advanced Pattern Classification', M. R. Ogiela and L. Jain (Eds.), Springer-Verlag, Germany, 2012.
- *T. Sobol-Shikler, `Automatic Inference of Complex Affective States'*, Computer, Speech and Language, vol. 25, pp. 45-62, 2011.
- T. Sobol-Shikler, Y. Parmet and Y. Edan, 'Quantity or Quality Predictability and Experience: A case study in Human-Robot Interaction',

Proc. of the 19th IEEE International RO-MAN 2010, Italy.

- *T. Sobol-Shikler, `Complementing Datasets for Recognition and Analysis of Affect in Speech',* Proc. of the Emotions Workshop, LREC 2010, Malta.
- T. Sobol-Shikler and P. Robinson, 'Classification of complex information: Inference of cooccurring affective states from their expressions in speech',

IEEE Trans. on Pattern Analysis & Machine Intelligence (TPAMI), vol. 32, no. 7, pp. 1284-1297, 2010.

- *T. Sobol-Shikler, `Analysis of affective expressions in speech',* Tech report, University of Cambridge, 2009.
- T. Sobol-Shikler, `Multi-modal analysis of human computer interaction using automatic inference of aural expressions in speech',

Proc. of IEEE International SMC 2008, Singapore.

- **Sobol-Shikler and Y. Edan, `Multi-modal Interfaces and affect for human-robot collaboration`,** Proc. of the ICR2008, 2008, Israel.
- *T. Sobol-Shikler, `Automatic inference of affective states from speech',* Proc. of the IEEEI 2008, Israel.
- *T. Sobol-Shikler and Y. Edan, `Multi-modal interfaces and affect for human-robot collaboration',* Proc. of the ESF-JSPS Conference on Cognitive Robotics, 2008, Japan.
- *T. Sobol-Shikler and P. Robinson, 'Affect Editing in Speech'*, Proc. of the1st International ACII 2005, China.
- *T. Sobol-Shikler, P. Robinson, 'Visualizing Dynamic Features of Expressions in Speech',* Proc. of Interspeech, ICSLP2004, Korea.
- T. Sobol-Shikler, R. El-Kaliouby and P. Robinson, 'Design Challenges in Multi-modal Inference Systems for Human-Computer Interaction',

Proc. of CWUAAT 2004, UK.

T. Sobol-Shikler and P. Robinson, 'Recognizing Expressions in Speech for Human Computer Interaction',

Designing a More Inclusive World, S. Keates, J. Clarckson, P. Langdon and P. Robinson (Eds), Springer-Verlag, 2004.

Employment

2012-	Based on the PhD research.
2012-2013	Associate Lecturer, Ben-Gurion University of the Negev
2007-2009	Supervision of undergraduate and diploma students, University of Cambridge, UK 3 different courses 3 research-related final year projects of undergraduate and diploma students
1999-2002	Teaching assistant, Tel Aviv University Head teaching assistant of the fundamental undergraduate course
1997-1998	Senior R&D ASIC Engineer, Metalink Ltd., Israel Last mile MODEMs
1994-1997	R&D VLSI Engineer, Digital Semiconductors, DEC, Israel LANs. All stages of chip design: ideas, design, implementation, verification, documentation, and post-manufacturing testing; wrote an internal tutoring book on tools, techniques & methodologies for R&D
1992	IAESTA Summer internship, Technical University of Budapest, Hungary programming
1990,1991	Summer internship, School of Applied Physics, Hebrew University of Jerusalem programming
1987-1989	IDF - 8200

Entrepreneur - Social Computing Technology

Academic presentations

Quantity or Quality – Predictability and Experience: A case study in Human-Robot Interaction, IEEE RO-MAN 2010, Italy.

Complementing Datasets for Recognition and Analysis of Affect in Speech, Emotions, LREC 2010, Malta.

Automatic inference of affective states from speech, IEEEI 2008, Israel.

Multi-modal Interfaces and affect for human-robot collaboration, ICR 2008, Israel.

Multi-modal analysis of HCI using automatic inference of aural expressions in speech, IEEE SMC 2008, Singapore.

Automatic analysis of expressions in speech, Univ. of Tokyo, 2008, Japan

Multi-modal interfaces and affect for human-robot collaboration, ESF-JSPS Conference on Cognitive Robotics 2008, Japan

Can we hear people think, can we discern genuine laughter...can a computer do it better? Univ. of Cambridge, 2006, UK.

Expressions in HCI, Univ. of Peking, 2005, China.

Affect Editing in Speech, ACII 2005, China.

 $\textit{Visualizing Dynamic Features of Expressions in Speech, INTERSPEECH \ \ ICSLP, \ 2004, \ Korea.}$

Expression in HCI, BCS_PAR, 2004, UK.

Recognizing Expressions in Speech for HCI, CWUAAT 2004, UK.

Design Challenges in multi-modal inference systems for HCI, CWUAAT 2004, UK.

<u>Seminars in Israel:</u> IEM, Technion, 2011; CS, Technion, 2011; EE-Sys, TAU 2011; CS, IDC 2011; EE, Bar-Ilan; IEM, BGU, 2010; CS, BGU 2009; IEM, BGU, 2009; Science Education, Technion, 2008; IS, BGU, 2008; IEM, BGU, 2007;