Dimitris Spiliotopoulos

Curriculum Vitae

(Last update: February 2013)

PERSONAL INFORMATION

Full name: Dimitris Emmanuel Spiliotopoulos

Date of Birth: 14 December 1973
E-mail: dspiliot@di.uoa.gr

Personal web page: http://www.spiliotopoulos.org

Current position: Senior Researcher

Department of Informatics and Telecommunications,

University of Athens, Athens, Greece.

Start date: August 2002

Current position: Principal Investigator,

Athens Technology Centre, Athens, Greece

Start date: September 2010

Work tel. number: +30 6977 059657.

Nationality: UK

RESEARCH INTERESTS

Human Computer Interaction, Usability methodologies, User Experience, Semantic Web, Digital Libraries, Spoken Dialogue Systems, Design-for-All, Universal Accessibility, Speech Prosody, Natural Language Processing, Document-to-Audio, Speech Acoustics and Evaluation.

EDUCATION

Philosophical Degree (PhD) in Language Technology (with distinction), 2009.

Department of Informatics and Telecommunications, University of Athens, Greece Thesis: Language analysis and prosodic feature annotation for high quality speech synthesis.

• Master of Philosophy (MPhil) in Computation, 1999.

University of Manchester, Institute of Science & Technology (UMIST), Manchester, UK. Thesis: Building workflow technology based on CORBA.

• Master of Arts (MA) in Linguistics, 1998.

University of Manchester, Department of Linguistics, Manchester, UK. Dissertation: Laryngeal elements: Cases of voicing in Modern Greek.

• Bachelor of Science (BSc) in Computation (Honours), 1995.

University of Manchester, Institute of Science & Technology (UMIST), Manchester, UK. Dissertation: Software Implementation of Transcendental Functions.

AWARDS

• PhD Scholarship, HERAKLITUS, "Synthetic speech improvement using high-level prosodic feature annotation" (2003-2007).

WORK EXPERIENCE

• August 2002 - present

University of Athens, Greece.

Senior Researcher, Department of Informatics and Telecommunications, Speech and Accessibility Group.

Involved in several research projects mainly in the domains of spoken dialogue systems, speech synthesis, prosody, design-for-all, universal accessibility.

• September 2010 - present

Athens Technology Centre, Athens, Greece.

Principal Investigator, currently leading several work packages for three current EU Research projects and involved in relevant proposals for ICT call 7, EU. Domains of work include HCI, user interfaces, usability evaluation, web services.

• September 2010 - present

University of Peloponnese, Greece.

Visiting Lecturer.

• October 2011 – present

Privately owned company specializing in opinion mining, www.intellitech.gr

November 2008 – September 2009

OMILIA LTD. Technical Director, Development of Voice User Interface for Vodafone GR Customer Care Services.

• March 2000 – July 2002

Research associate, Software and Knowledge Engineering Laboratory, Institute of Informatics and Telecommunications, NCSR "Demokritos".

Worked for the European Community funded research project "M-PIRO", and the Nationally funded (PENED'99) research project "HYGEIOROBOT". Also involved in SCHEMATOPIESIS, EPET II/98GT27 Project "Integrated environment for the development and exploitation of Greek controlled languages" (1999-2001)

PROFESSIONAL ACTIVITIES AND ACHIEVEMENTS

• Taught courses in undergraduate and postgraduate level at the University of Athens and the University of Peloponnese.

- Performed research in HCI and Speech, Prosody, Linguistics, Semantic Web, Digital Libraries with more than 35 publications in international journals, books and conferences with more than 100 citations.
- Involved in 11 EU-funded research projects.
- Superb ability and experience in project proposal writing with research projects funded for more than 2 Million Euros total for the University of Athens, Athens Technology Centre and University of Peloponnese over a period of 8 years.
- Direct collaboration with major researchers in Europe (partial list in COOPERATION below)
- Member of IEEE, ACL and ISCA.
- Contacted several tutorials in HCI and Accessibility in Greece as a member of the Speech and Accessibility Group of the University of Athens.
- Involved in the business sector with leading products in opinion mining developed during the
 last 18 months as well as the Vodafone Customer Care Voice Services that has received the best
 IVR service award in Greece, also being the third automatic spoken dialogue system for
 Vodafone in the world, after Vodafone Australia and Spain.
- Currently leading a small team of HCI and Digital Libraries/Semantic Web developers at ATC that are involved in three EU-funded research projects, one of them being a 6 million euro IP.
- In Greece, only Professors are allowed to fully supervise theses. In that respect, theses and dissertations have been unofficially supervised, the latest being Mrs P. Stavropoulou at the University of Ioannina that partly pursues research that extends my PhD research results.

COOPERATION

Recent cooperation for EU funded projects with researchers from the following institutions:

- University of Zurich, Switzerland
- DFKI, Saarbrucken, Germany
- Vicomtech, Spain
- Deutche Welle, Germany
- Thales, France
- University of Southampton, UK
- Institute Paristech, France
- University of Sheffield, UK
- L3S, Hannover, Germany
- Yahoo Iberia, Spain
- SINTEF, Norway
- ATHENA Research Centre, Greece
- Austrian Parliament, Austria
- University of Crete, Greece
- Intrasoft International, Luxemburg
- Internet Memory Foundation, France
- University of Birmingham, UK
- European Journalism Centre, The Netherlands
- Hamburg University of Technology, Germany

Detailed teaching posts, publication list, research projects, reviewer assignments

TEACHING

Undergraduate courses

Informatics for Management Studies (2011-12 to present).

Department of Sports Organization and Management, University of Peloponnese.

Media and Theatre Informatics (2010-11).

Department of Theatre Studies, University of Peloponnese

Theoretical Linguistics (2010-11).

Department of Linguistics, University of Peloponnese

Real Time Digital Signal Processing (2003-04 to 2005-06). Teaching Assistant.

Department of Informatics and Telecommunications, University of Athens

Postgraduate courses

Speech technologies and Spoken Dialogue Systems (2012-13 to present) University of Athens, Department of Informatics and Telecommunications.

Speech Technologies (2004-05 to 2011-12). Teaching Assistant.

University of Athens, Department of Informatics and Telecommunications.

PUBLICATIONS

Journal papers

- Spiliotopoulos, D., Cabulea, C., Frey, D., Lasfargues, F., Peters, W., Risse, T. (2013): Journalists in Times of Social Media: An Application Centric Social Web Preservation Approach, World Wide Web, Special Issue on Social Media Preservation and Applications, Springer, 2013, accepted.
- Hendley, R., Beale, R., Georgousopoulos, C., Vassiliou, C., Petridis, S., Moeller, R., Karstens, E., Spiliotopoulos, D. (2012): CASAM: Collaborative Human-Machine Annotation of Multimedia. Multimedia Tools and Applications, Special Issue on Multimedia Authoring and Annotation, Springer, 2013, to appear
- 3. Spiliotopoulos, D., Xydas, G., Kouroupetroglou, G., Argyropoulos, V., Ikospentaki, K. (2010): Auditory Universal Accessibility of Data Tables using Naturally Derived Prosody Specification. Univ. Access Inf. Soc., vol.9, no. 2, pp. 169-183, June 2010, Springer Berlin Heidelberg.
- 4. Kouroupetroglou, G., Spiliotopoulos, D. (2009): Usability Methodologies for Real-Life Voice User Interfaces. International Journal of Information Technology and Web Engineering, vol. 4, no. 4, pp. 78-94.
- Xydas, G., Spiliotopoulos, D., Kouroupetroglou, G. (2005): Modeling Improved Prosody Generation from High-Level Linguistically Annotated Corpora. IEICE Trans. of Inf. and Syst., Special Section on "Corpus-Based Speech Technologies", vol. E88-D, no 3, March 2005, pp. 510-518.

Book chapters

- Spiliotopoulos, D., Kouroupetroglou, G., Stavropoulou, P. (2011): VoiceWeb: Spoken Dialogue Interfaces and Usability. Chapter in the book: Web Engineered Applications for Evolving Organizations: Emerging Knowledge, 2010, Information Science Reference Press (IGI Global), Pennsylvania, USA.
- Stavropoulou, P., Spiliotopoulos, D., Kouroupetroglou, G. (2010): Design and Development of an Automated Voice Agent: Theory and Practice Brought Together. Chapter in the book: Conversational Agents and Natural Language Interaction: Techniques and Effective Practices, 2010, Information Science Reference Press (IGI Global), Pennsylvania, USA.
- 8. Spiliotopoulos, D., Kouroupetroglou, G. (2009): Usability Methodologies for Spoken Dialogue Web Interfaces. Chapter in the book: Integrating Usability Engineering for Designing the Web Experience: Methodologies and Principles, 2009, Information Science Reference Press (IGI Global), Pennsylvania, USA, ISBN: 1605668966.

Conferences

- Spiliotopoulos, D., Bouwmeester, R., Kouroupetroglou, G., Stavropoulou, P., Tsonos, D. (2013): Usability design and testing of an interface for search and retrieval of semantic web data, Proc. 15th Int. Conf. on Human Computer Interaction, 21-26 July 2013, Las Vegas, Nevada, USA (to appear)
- 10. Spiliotopoulos, D., Stavropoulou, P., Kouroupetroglou, G., Tsonos, D. (2013): User Perception Knowledge for Socially-aware Web document Accessibility, Proc. 15th Int. Conf. on Human Computer Interaction, 21-26 July 2013, Las Vegas, Nevada, USA (to appear)
- 11. Spiliotopoulos, D., Frey, D., Kouroupetroglou, G., Stavropoulou, P. (2013): The Iterative Design and Evaluation Approach for a Socially-aware Search and Retrieval Application for Digital Archiving, Proc. 6th Int. Conf. Advances in Computer-Human Interactions, pp. 157-161, Nice, France, 24 February 1 March, 2013.
- 12. Spiliotopoulos, D., Schefbeck, G., Koryzis, D. (2013): Obtaining Societal Feedback on Legislative Issues through Content Extraction from the Social Web, Proc. 16th Int. Symp. Legal Informatics, 21-23 February 2013, Salzburg, Austria.
- 13. Schefbeck, G., Spiliotopoulos, D., Risse, T. (2012): The Recent Challenge in Web Archiving: Archiving the Social Web, International Council on Archives Congress, Brisbane, Australia, 20-24 August 2012.
- 14. Spiliotopoulos, D., Tzoannos, E., Stavropoulou, P., Kouroupetroglou, D., Pino, A. (2012): Designing user interfaces for social media driven digital preservation and information retrieval, 13th Int. Conf. on Computers Helping People with Special Needs, Linz, Austria, 11-13 July, 2012.
- 15. Stavropoulou, P., Spiliotopoulos, D., Kouroupetroglou, D. (2012): Resource Evaluation for Usable Speech Interfaces: Utilizing Human—Human Dialogues, 8th International Conference on Language Resources and Evaluation, Istanbul, Turkey, 23-25 May, 2012.
- Del Pozo, A., Bywood, L., Georgakopoulou, Y., van Loenhout, G., Petukhova, V., Sepesy Maucec, M., Spiliotopoulos, D., Trespalacios, V., Volk, M., Way, A. (2012): SUMAT: An online service for SUbtitling by MAchine Translation, 16th Annual Conference of the European Association for Machine Translation, Trento, Italy, 28-30 May, 2012.

- Stavropoulou, P., Spiliotopoulos, D., Kouroupetroglou, D. (2011): Acoustic modeling of dialogue elements for document accessibility, Universal Access in Human-Computer Interaction. Applications and Services, Lecture Notes in Computer Science, 2011, Volume 6768/2011, 175-184, DOI: 10.1007/978-3-642-21657-2_19
- 18. Apostolikas, G., Spiliotopoulos, D., et al (2010): CASAM: A prototype system for computer-aided semantic annotation of multimedia, Proc. 5th International Conference on Semantic and Digital Media Technologies (SAMT 2010), Saarbrücken, Germany, 1-3 December 2010.
- Pino, A., Kouroupetroglou, G., Kacorri, H., Sarantidou, A., Spiliotopoulos, D. (2010): An Open Source / Freeware Assistive Technology Software Inventory. Proc. 12th Int. Conf. on Computers Helping People with Special Needs, ICCHP 2010, Part I, LNCS 6179, Springer-Verlag Berlin Heidelberg, pp. 178–185, 2010.
- Stavropoulou, P., Spiliotopoulos, D., Kouroupetroglou, G. (2010): Integrating Contrast in a Framework for Predicting Prosody. Lecture Notes in Computer Science 6008, Computational Linguistics and Intelligent Text Processing, Springer Berlin Heidelberg, pp. 748-758, 2010, ISBN 3978-3-642-12115-9.
- 21. Spiliotopoulos, D., Stavropoulou, P., Kouroupetroglou, G. (2009): Spoken Dialogue Interfaces: Integrating Usability. Lecture Notes in Computer Science 5889, HCI and Usability for e-Inclusion, Springer Berlin Heidelberg, pp. 484-499, 2009, ISBN 0302-9743.
- 22. Spiliotopoulos, D., Stavropoulou, P., Kouroupetroglou, G. (2009): Acoustic Rendering of Data Tables using Earcons and Prosody for Document Accessibility. Lecture Notes on Artificial Intelligence 5616, Universal Access in HCI, Springer Berlin Heidelberg, pp. 587-596, 2009.
- 23. Stavropoulou, P., Spiliotopoulos, D. (2009): Prosodic Realisation of Topics. Proc. 19th Int. Symp. Theoretical and Applied Linguistics, Thesssaloniki, 3-5 April 2009, Greece.
- Spiliotopoulos, D., Petasis, G., Kouroupetroglou, G. (2008): A Framework for Language-Independent Analysis and Prosodic Feature Annotation of Text Corpora. Lecture Notes in Artificial Intelligence 5246, Text Speech and Dialogue, Springer-Verlag Berlin Heidelberg, pp. 517-524, 2008.
- 25. Spiliotopoulos, D., Petasis, G., Kouroupetroglou, G. (2005): Prosodically Enriched Text Annotation for High Quality Speech Synthesis. Proc. Int. Conf. Speech and Computer (SPECOM-2005), 17-19 October 2005, Patras, Greece, pp. 313-316.
- 26. Spiliotopoulos, D., Xydas, G., Kouroupetroglou, G. (2005): Diction Based Prosody Modeling in Table-to-Speech Synthesis. Lecture Notes in Artificial Intelligence 3658, Text Speech and Dialogue, Springer-Verlag Berlin Heidelberg, pp. 294-301, 2005, ISBN 3-540-28789-2.
- 27. Spiliotopoulos, D., Xydas, G., Kouroupetroglou, G., Argyropoulos, V. (2005): Experimentation on Spoken Format of Tables in Auditory User Interfaces. Universal Access in HCI, Vol. 8, Proc. Int. Conf. Human-Computer Interaction (HCII-2005), Las Vegas, USA, 22-27 July, 2005.
- 28. Xydas, G., Spiliotopoulos, D., Kouroupetroglou, G. (2004): Modeling Prosodic Structures in Linguistically Enriched Environments. Lecture Notes in Artificial Intelligence 3206, Text Speech and Dialogue, Springer-Verlag Berlin Heidelberg, pp. 521-528, 2004, ISBN 3-540-23049-1.
- 29. Xydas, G., Spiliotopoulos, D., Kouroupetroglou, G. (2003): Building Prosodic Structures in a Concept-to-Speech System. Proc. Balkan Language Resources and Tools, 1st Balkan Conference on Informatics (BCI-2003), 21-23 November 2003, Thessaloniki, Greece, pp. 105-111.

- 30. Xydas, G., Spiliotopoulos, D., Kouroupetroglou, G. (2003): Prosody Prediction from Linguistically Enriched Documents Based on a Machine Learning Algorithm. Proc. Workshop on Text Processing for Modern Greek: from Symbolic to Statistical Approaches, 6th Int. Conf. Greek Linguistics (ICGL-2003), Rethymno, Crete, Greece, 18-21 September, 2003.
- 31. Xydas, G., Spiliotopoulos, D., Kouroupetroglou, G. (2003): Modelling Emphatic Events from Non-Speech Aware Documents in Speech Based User Interfaces. In Stephanidis C., and J. Jacko (Eds), Human-Computer Interaction, Theory and Practice, Proc. Int. Conf. Human-Computer Interaction (HCII-2003), 22-27 June, 2003, Crete, Greece. Mahwah, NJ, Lawrence Erlbaum Associates, Inc., 2003, Vol. 2, pp. 806-810.
- 32. Androutsopoulos, I., Spiliotopoulos, D., Stamatakis, K., Dimitromanolaki, A., Karkaletsis, V., Spyropoulos, C.D. (2002): Symbolic Authoring for Multilingual Natural Language Generation. Lecture Notes in Artificial Intelligence 2308, Springer-Verlag Berlin Heidelberg, pp. 131-142, 2002.
- 33. Spiliotopoulos, D., Androutsopoulos, I., Spyropoulos, C.D. (2001): Human-Robot Interaction Based on Spoken Natural Language Dialogue. European Workshop on Service and Humanoid Robots (ServiceRob-2001), Santorini, Greece, 25-27 June, 2001.
- 34. Spiliotopoulos, D., Androutsopoulos, I. (2000): A Survey of Spoken Dialogue Management Techniques, Technical Report DEMO 2000/15, NCSR "Demokritos".

Theses and Dissertations

- 35. Spiliotopoulos, D. (2009): Language analysis and prosodic feature annotation for high quality speech synthesis. PhD thesis, Dept. Informatics and Telecommunications, University of Athens, Greece.
- 36. Spiliotopoulos, D. (1999): Building workflow technology based on CORBA. MPhil Computation thesis, Dept. Computation, UMIST, UK
- 37. Spiliotopoulos, D. (1998): Laryngeal elements: Cases of voicing in Modern Greek. MA Linguistics dissertation, Dept. Linguistics, University of Manchester, UK
- 38. Spiliotopoulos, D. (1995): Software Implementation of Transcendental Functions. BSc Computation dissertation, Dept. Computation, UMIST, UK

RESEARCH PROJECTS

- ARCOMEM. EU-FP7-ICT, Large-Scale Integrating Project (IP), "Collect-All Archives to Community Memories – Leveraging the Wisdom of the Crowds for intelligent Preservation" (2011-2013), www.arcomem.eu. (Principal investigator and project manager for ATC)
- SUMAT. EU-FP7-ICT-PSP, "An online service for Subtitling by Machine Translation" (2011-2014), www.sumat-project.eu. (Principal investigator for ATC and Technical coordinator for the project)
- FASHION-ABLE. EU-FP7-FoF, "Development of new technologies for the flexible and eco-efficient production of customized healthy clothing, footwear and orthotics for consumers with highly individualised needs" (2011-2014), http://www.fashionable-project.eu. (Principal investigator and project manager for ATC)

- CASAM, EU-FP7, "Computer-aided semantic annotation of multimedia content", www.casam-project.eu. (Project manager for ATC)
- Enviro-Tex-Design, EU-FP7-Cooperation research project, "Knowledge Based Collaborative 3D Virtual Design" dedicated to the Clothing & Leather/Footwear SMEs, www.envirotexdesign.eu (Project manager for ATC)
- Project "Sintichies", Lexicon processing and synthetic speech for Greek Cypriot, University of Cyprus (2009-2010) (Senior Researcher for University of Athens)
- Project "Vodafone Customer Care Voice Services", business project (2008-2009), (Technical Director for Omilia Ltd)
 - Design of a Natural Language Dialogue Interface for fully automated customer care call-routing and self-services for Vodafone-GR. Research on a machine learning approach for a dialogue interpretation module for automatic categorization of calls according to corresponding services and top-level customer care department categorization, based on the spoken user input.
- RHETOR, GSRT IS Program: "Image, Sound and Language Processing", Project title: "Systematic Approach for a Voice Dialog Interface with Audification of the Meta-information and Visual Structure of Documents, Aiming to Total Access to Printed Material" (2006-2008). (Senior Researcher for University of Athens)
- M-PIRO, IST (Information Society Technologies) of the EU (European Union) 5th Research Framework , Multilingual Personalized Information Objects (2000-2003). (Researcher for University of Athens and NCSR Demokritos)
- YGEIOROBOT, PENED Program. "Spoken Dialogue Navigation and Control of a prototype mobile robot for hospital services, with spoken dialogue capabilities" (1999-2001) (Researcher for NCSR Demokritos)
- SCHEMATOPIESIS, EPET II/98GT27 Project "Integrated environment for the development and exploitation of Greek controlled languages" (1999-2001). (Researcher for NCSR Demokritos)

REVIEWER ASSIGNMENTS

- Program Committee Member for the Workshop in Personalization Approaches in Learning Environments (PALE 2013), a satellite event of the Conference in User Modeling, Adaptation and Personalization (UMAP 2013), Rome, June 10-14, 2013.
- Program Committee Member for the 18th International Conference on Digital Signal Processing (DSP2013), Santorini, Greece, 1-3 July 2013.
- Reviewer for the 15th Int. Conf. on Human Computer Interaction, 21-26 July 2013, Las Vegas, Nevada, USA.
- Workshop in Personalization Approaches in Learning Environments (PALE 2012), a satellite event
 of the Conference in User Modeling, Adaptation and Personalization (UMAP 2012), Montreal,
 July 16-20, 2012.
- Evaluator for the Programme "Social Sciences", action "Socio-Economic Sciences and Humanities", Framework Programme for Research, Technological Development and Innovation (2009-2010), Republic of Cyprus.

- Reviewer for the book: Tiwary, U.S. (Ed) Speech, Image and Language Processing for Human Computer Interaction: Multi-modal Advancements, IGI Global, 2011.
- Reviewer for the 14th International Conference on Human-Computer Interaction, 9-14 July 2011,
 Orlando, Florida, USA
- Reviewer for the book: Ceccarelli, M. (Ed) Service Robots and Robotics: Design and Application, IGI Global, 2011.
- Reviewer for the Journal of Computers & Mathematics with Applications, Elsevier.
- Program Committee Member for the Workshop in Personalization Approaches in Learning Environments (PALE 2011), a satellite event of the Conference in User Modeling, Adaptation and Personalization (UMAP 2011), Girona, Spain, July 11-15, 2011.
- Member of the Technical Committee of the 17th International Conference on Digital Signal Processing (DSP2011), Corfu, Greece, 6-8 July 2011.
- Co-organizer and Co-chair of the CASAM Special Session at the 5th International Conference on Semantic and Digital Media Technologies (SAMT 2010), Saarbrücken, Germany, 1-3 December 2010.
- Reviewer for the Special Issue of the International Journal on Artificial Intelligence Tools (IJAIT) on AI Tools for HCI Modeling, vol. 19, n5, October 2010.
- Program Committee Member for the Workshop in Adaptation and Personalization in E-B/Learning using Pedagogic Conversational Agents (APLeC), a satellite event of the Conference in User Modeling, Adaptation and Personalization (UMAP 2010), Big Island of Hawaii, 20-24 June 2010.
- Reviewer for the 16th International Conference on Digital Signal Processing (DSP2009), Santorini, Greece, 5-7 July 2009.

PROGRAMMING SKILLS

Several years experience in object oriented programming and excellent knowledge of the Java programming language. Good knowledge of Tcl/Tk.

LANGUAGES

English, Greek.

INTERESTS

Long distance running, music, reading, photography.

REFERENCES

I have closely worked with the following people who would be happy to provide references.

I have been collaborating with Prof. Martin Volk and his team during the last two years for the EU-funded project SUMAT. Prof. Kouroupetroglou was my PhD supervisor and his expertise lies within the domains of speech synthesis, prosody and accessibility. I have been a member of the Speech lab led by him since 2002. Prof. Kriemadis is the Director of Postgraduate studies at the University of Peloponnese in Sparta where I have been a visiting Lecturer for last two years.

Prof. Martin Volk
Dept. Computational Linguistics
University of Zurich
Oerlikon Campus, Zurich,
Switzerland,
Email: volk@cl.uzh.ch

Prof. Georgios Kouroupetroglou Dept. Informatics and Telecommunications University of Athens Panepistimiopolis, Ilissia, Athens 15784, Greece

Email: koupe@di.uoa.gr

Prof. Thanos Kriemadis
Dept. Sports Organization and Management,
University of Peloponnese,
Orthias Artemidos and Plateon,
Sparta 23110,
Greece

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