

EDITORIAL



Welcome to the first (and only) ASSTA Newsletter for 2016. This issue coincides with the 30th Anniversary of SST and there are a several pieces reflecting on the history of SST and ASSTA by long standing members of the speech community.



The President's report from Denis is a personal reflection of his time on the ASSTA executive and as president. I'd like to take this opportunity to thank Denis for his service to ASSTA and the opportunities he has given me.



There are three travel reports from students in this issue. One each from Interspeech, LabPhon, and Speech Prosody. It is great to see ASSTA being able to support our up and coming researchers to international events. Although, all three are from the same institution, so let's see some other students getting out there and spreading the word. ASSTA will support a student with a contribution of \$500 towards expenses.



ASSTA supported an event on the sociophonetic variability in English varieties of Australia. Held in Brisbane, it was the first of its kind and went so well they intend to have another in 2018. ASSTA supported the workshop with a cash contribution of \$4,664 to keynote speakers.



Don't forget, when you have news and information to publicise about speech science, this is the place to do it. So keep sending information and updates about your work and upcoming events. Also ASSTA has a number of grant initiatives available to financial members of ASSTA, including travel awards, supporting events and other special initiatives. See here for more details: http://www.assta.org/?q=assta-grants-program



ASSTA strives to do its best for its members. This is enhanced by support from its members which includes payment of membership dues, participation in ASSTA activities and the promotion of ASSTA. So, please do you best to renew your dues and encourage your colleagues to join.



Enjoy SST 2016 and have a happy, safe and relaxing holiday time...unless you are a typical academic who sees "leave" as the perfect time to write grants and papers!





ASSTA Information	2
President's Report	3
The Legacy of ASSTA and SST	
SST 30th Anniversary	
Opening Plenary Speakers	9
ASSTA Research Event	
ASSTA Travel Reports	15



ASSTA Information

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Contributions should be sent to the newsletter team via email as plain text or as an attachment in Rich Text Format (RTF), Microsoft Word (DOC), or PDF.

Visit ASSTA on the Web: http://www.assta.org/



President's Report



President's Personal Reflections Report

In 1997 ASSTA President Bruce Millar asked me to serve on the Technical Program Committee for the 1998 ICSLP (the forerunner of Interspeech) conference. After Robert Dale, the 1998 Technical Program Chair, had taught the PCO (Professional Conference Organiser) how to run a webbased conference, and Bruce and his team had made an enormous profit, I was asked to join the ASSTA Executive and my first job was to set up a conference travel and research grants scheme to help spend the ASSTA profit fruitfully over the next 10-15 years. (16 years later ASSTA is still very solvent and continues to support conference travel and research grants.)

I became ASSTA President in 2002 and 3 years earlier in 1999 I had moved from UNSW to become Founding Director of the Macarthur Auditory Research Centre Sydney – MARCS (later the MARCS Institute for Brain Behaviour and Development). These two changes forced me to emerge shyly from my cocoon of administrative ignorance, deliberately spun over the preceding 18 years at UNSW. (I was administratively completely naïve: At my interview for the MARCS job, I was asked for my views on EEO and OH&S; I replied, "I don't know

what they are, but I am all for them".) I then set shamelessly about intertwining ASSTA, MARCS and my research roles. UWS wanted big grants and ASSTA wanted to be support and be more involved in research.

What followed was the Communication Science ARC Research Network (HCSNet) supported by ASSTA and led by Robert Dale at Macquarie and Kate Stevens and me at UWS; the Thinking Head ARC Special Initiative Project which built upon and extended the academic eclecticism of ASSTA and HCSNet; Steve Cassidy's DADA-HCS (Distributed Access and Data Annotation for the Human Communication Sciences); then after two unsuccessful bids, an ARC LIEF grant (the Big ASC - Australian Speech Corpus) to establish AusTalk, the 1000 speakers x 3 hours auditory-visual speech corpus that had integral input from all the varied arms of Speech Science and Technology Research; and then finally Alveo (the Human Communication Science Virtual Laboratory) to house and make available AusTalk along with many other corpora and research tools along with the facility to ingest further tools and corpora.

In my stint as ASSTA President I have had the privilege of working with Executive Members Catherine Watson, Michael Tyler, Roberto Togneri, Marija Tabain, Trent Lewis, David Grayden, Roland Goecke, Felicity Cox, Steve Cassidy, and Johanna Barry. Along the way we ran one big international conference,

supported research initiatives, facilitated bids for research grants, and presided over and funded many SSTs, research workshops, and the like.

The vision of Bruce and his contemporaries, who are to be honoured at SST 2016, the 30th anniversary of the first SST, is being met. ASSTA and the SST series have survived



President's Report

and flourished (for possible reasons for this see John Ingram's piece in this Newsletter). Moreover the vision for ASSTA to host a major international conference every 10 years after ICSLP 1998 has also been met; first by Interspeech 2008 in Brisbane (committee = me, Catherine Best, Andy Butcher, Anne Cutler, Janet Fletcher, Mel Gallagher, David Grayden, John Ingram, Debbie Loakes, Gordon McIntyre, Julie Vonwiller, Michael Wagner), and second by the excellent and successful bid by ASSTA stalwart, Marija Tabain and her team for ICPhS 2019 to be held in Melbourne.

Again we will show the world what we can do. We are a hardy bunch of researchers and we now have a dirty big corpus of Australian (soon to be Australasian, I hope) auditory-visual speech to play with, plus the continuing financial legacy of ICSLP 1998.

SST was the first conference of its type in the world and ASSTA one of the first organisations of its type. Yet there remain things to be done. I wish the new Executive well.

> Denis Burnham, ASSTA President, 2002-2016, December 2016





The Legacy of ASSTA and SST

by John Ingram

My role in the formation of ASSTA and the first SST conference was a marginal one. Someone (probably John Clark) suggested that having a "Queensland representative" would assist in fleshing out the national character of the founding ASSTA executive committee, to any enquiring Canberra bureaucrat. I was happy to be involved, in whatever minor capacity, with what promised to be an exciting cross-disciplinary initiative, whose time had come: a bold and optimistic collaboration between emerging electrical engineering, and computer science in potentially disruptive dialogue with wellestablished sub-fields of psychology, linguistics, phonetics and speech and hearing science.

From my worm's eye perspective, the mid 20th century will go down as the period when mathematical and algorithmic modeling transformed the academic *zeitgeist*, placing questions of speech and language processing at the center (rather than the periphery) of what later became known as 'the cognitive sciences'.

What were the preconditions that made this collaboration of quite distinct fields of intellectual endeavor feasible or even imaginable? They were both conceptual and methodological. First and foremost, for me anyway, was a revelatory little monograph purporting to demonstrate that human language (or at least a non-trivial fragment thereof) could be modeled by an explicit set of rules (a production system) and furthermore, that the formal properties of such a system may provide the basis for characterizing an innate language learning capability. Yep, Chomsky's 'revolution' had arrived. Within a decade of publication of Syntactic Structures dozens of graduate programs in Psycholinguistics and NLP emerged in leading universities across the USA and the rest of the academic world was scrambling to catch up.

In the domain of speech, Gunner Fant's Acoustic model of Speech Production provided a mathematically rigorous framework for modeling the acoustics of speech production. Fant, Halle, and Stevens provided a programmatic schema, suggesting how such a model could articulate with a discrete framework of 'universal' phonetic features, rich enough to capture the 'distinctive' sound contrasts that comprise phonological targets in any of the world's languages.

But there were other important technical achievements in the implementation mathematical and algorithmic modeling, made possible, first by the proliferation of mainframe, then 'midi', and finally 'microcomputers' (like the legendary Apple II+). Cheap, flexible DSP algorithms like the FFT were replacing expensive dedicated analog devices like the sound spectrograph. Off-the-shelf program packages like ILS made it possible to sequence signal processing operations that could (in principal at least) mimic hypothetical operations that might take place in the auditory speech processing system, to extract 'articulatory target' sequences from the acoustic stream of speech.

In Australia, two national forums emerged, more or less contemporaneously: SST and the Melbourne based Language and Speech Conference, which met on alternate years; one focused predominantly on language (more strictly speaking on Psycholinguistics) and the other on speech (Speech Science and Technology). There was some overlap in content of the two conferences, but not as much 'cross talk' as some of us would have liked and which one international forum, ICSLP (later, Interspeech) managed to achieve.

But what I find interesting and relevant for the present discussion is that the *SST* series (which actually predated *ESCA*, its European sister conference) has flourished into its 30th anniversary, whereas *Language and Speech* gracefully faded and disappeared from view after a few years. The reasons for the longevity of one



The Legacy of ASSTA and SST

and the decline of the other are no doubt complex and 'multifactorial' (to use an over-worked and probably best discarded descriptor). But let me offer a few suggestions:

- Timely high quality production of conference proceedings
- Workshop and tutorial programs
- An active national association and executive (ASSTA)
- Pro-active pursuit of industry and government patronage
- The dual national and international focus

Conference proceedings may be 'ephemera', but the effort required to produce, an attractive, quality volume of format-controlled, reviewed 'Proceedings...' placed in delegates hands prior to conference presentation was, in my view, a major factor in the initial and continuing success of SST conferences. It ensured minimal standards of scientific probity and transparency ('keeping the bastards honest'), enhanced intelligibility of the more nerdy oral presentations (of which there were typically quite a few), and provided novice researchers with a prototype paper that could be worked up for later submission to a major journal. Other conferences, of course, published full proceedings. But none did a better job than the SST series.

Particularly in the early days, when speech science and technology sought to establish itself as a cross-disciplinary undertaking, the *introductory and special interest tutorials* that preceded the SST conference were critical for stimulating collaboration and attracting newcomers to the field.

From its inception, the SST series has been blessed with a small cadre of inspirational leaders and dedicated operatives (the ASSTA executive), who have navigated the organization between conferences while strengthening its asset base through a range of initiatives: the national speech data base, the curating and hosting of major international conferences, the funding and

promotion of locally convened workshops, student travel awards, the ASSTA newsletter, canny financial management, etc.

Pro-active pursuit of industry and government patronage was evident from the sponsor's list and the membership of the organizing committee of first SST: A malgamated Wireless the (Australasia) Limited. Dept. of Industry, Technology and Commerce, Dept. of Science, Commission Telecommunication Overseas (Australia), Telecom Australia, Nucleus Ltd. Some may view this list as a nostalgic reminder of an era when Australia and its national government still aspired to innovation and independence in the telecommunications industry. I could not possibly comment. What is clear. and deserves acknowledgement, is that over the years, Australia's flagship symbol of innovation excellence, Cochlear Ptv Ltd has been an enduring sponsor of SST conferences, and Cochlear based researchers have made the kind of singular contributions to Australian speech science and technology that the founders of SST originally hoped to catalyze by pursing government and industry patronage.

The dual national and international focus of the SST series was forthrightly stated by the executive in the Forward to the SST-86 Proceedings:

"We expect SST-86 to be the first in a line of conferences which will focus the national effort in Speech Science and Technology and provide a forum in Australia for the exchange of international expertise."

John Clark (Macquarie University) Bruce Millar (Australian National University) Mary O'Kane (Canberra College of Adv. Ed.)

Michael Wagner (University of NSW/ADFA)

It was an optimistic time back then, when it was still quite possible to plausibly invoke a 'national effort' in the service of 'an exchange of international expertise'. I doubt whether such a call could be credibly issued today, given the

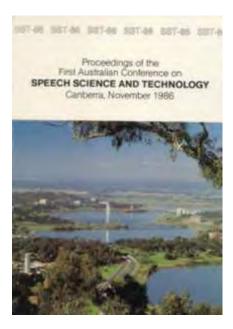


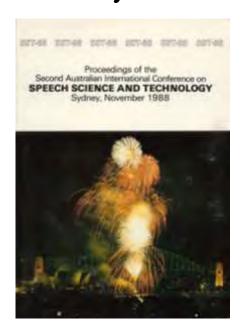
The Legacy of ASSTA and SST

'current landscape of greatly diminished public expectations for national mobilization of intellectual resources, as we enter the brave new era of the Anthropocene, with its unprecedented challenges for collective action informed by scientific inquiry.

SST 30th Anniversary

The 16th Australasian International Conference on Speech Science and Technology (SST2016) marks the 30-year anniversary of the first SST conference hosted by ANU in Canberra in 1986. The SST-86 conference was a pivotal point for the Speech Science and Technology community in Australia and its recognition internationally. Two eminent keynote speakers (Professor John Laver – University of Edinburgh; Professor Louis Pols - University of Amsterdam) provided an external stamp of quality alongside the burgeoning work arising from the 20-30 local research groups. The SST-86 contributions included 58 papers, 6 of which were from international researchers. SST-86 was later recognised as an "international first" for the field (quickly to be followed by the Europeans with 'Eurospeech' in 1987 (now incorporated into 'Interspeech'.)





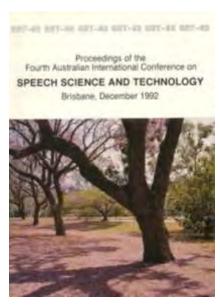
ASSTA (the Australian Speech Science and Technology Association, later in 2005 to become the Australasian Speech Science and Technology Association) Inc was formed in December 1988 at the second SST conference hosted by Macquarie in Sydney. SST participation rose to 68 (17 international). An initial ASSTA membership of about 80 people paid \$1 each to join and the financial assets of the community largely associated with the mounting of SST-86 and SST-88 were transferred from university holding accounts to ASSTA Inc. An executive of five has been active since that time, initially elected biennially, but since 1994, annually. This 1988 seminal executive consisted of Michael Wagner (President), Bruce Millar (Secretary), Peter Blamey (Treasurer), John Clark, and John Ingram.



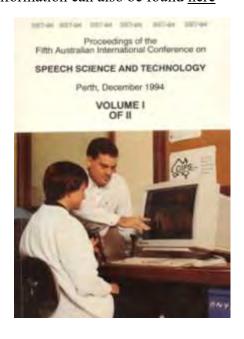
Chris Carignan and Denis Burnham
-Adapted from <u>"ASSTA History and Prehistory – a personal view"</u>, by Bruce Millar. More information can also be found here

Over the years the executive has spawned many activities designed to stimulate involvement in the aims of the Association. An example was that in 1992 members were encouraged to lobby the ARC to support the development of an Australian English Spoken Data Corpus. As a result the ANDOSL project was born and the products of that project have been distributed to many Australian and some overseas research groups. ANDOSL was followed in 2011 by the ASSTAsupported and ARC-funded AusTalk, an auditoryvisual database of 3 hours of speech in different formal and more spontaneous contexts by close to 1,000 adult Australian English speakers from 17 locations around Australia; and the ASSTAsupported and NeCTAR-funded Alveo Virtual Laboratory in which AusTalk and many other speech and language databases are stored along with tools by which to operate on the data.

The Association has gained international recognition owing to its early emergence relative to other parts of the world and to its very active biennial SST conference series attracting international keynote speakers and delegates. Further recognition has been strengthened by ASSTA's involvement in hosting international conferences in Australia.



In 1994 the vision for ASSTA Inc to bid for a major international conference was adopted by the ASSTA executive. The bid to run ICSLP-98 was successful against strong competition from Japan and Korea. A triumverate of Peter Blamey,



Bruce Millar, and Julie Vonwiller steered the process with strong support in the final year from a wide group of individual members. Following a very successful conference which is still being talked about in international circles as one of the best, the ASSTA executive funded many initiatives to encourage Australian involvement in the international domain and to encourage students and young researchers into the field.

Further the executive cast a vision for Australia to aim to host such a conference approximately every 10 years. An unsuccessful bid to host the 2007 International Congress on Phonetic Sciences was followed by a successful bid to host the 2008 International Conference of Spoken Language Processing fulfilling the vision cast some 10 years before. Chair Denis Burnham and a committee of David Grayden, Michael Wagner, Andy Butcher, Janet Fletcher, Debbie Loakes, John Ingram, Roland Goecke, Catherine Best, Anne Cutler, and Mel Gallagher ran a very successful conference in Brisbane.

The ASSTA 10-year vision for international conferences has been fulfilled again by the successful bid by Marija Tabain (along with her co-chairs Paola Escudero and Sasha Calhoun) to host the 2019 International Congress on Phonetic Sciences in Melbourne.



30th Anniversary SST 2016 Opening Plenary Speakers

For the SST 2016 Opening Plenary address we are delighted to welcome five researchers whose vision saw the genesis of SST conferences and spawned a whole range of speech science and technology initiatives which continue to this day in Australasia: Emeritus Professors John Clark, Bruce Millar, Michael Wagner, Peter Blamey and John Ingram. Below you will find their short biographies and examples of abstracts from their contributions to SST 1986!

John Clark



After a career in Electrical engineering and a stint in phonetics at Sydney University John Clark joined Macquarie University in 1974 where there was a strong interest in speech science under the leadership of Arthur Delbridge and John Bernard. His research involved speech synthesis by rule and the perception of synthesised speech as well as speech physiology and the development of speech based hearing tests for the aviation industry. John became Director of the Speech Hearing and Language Centre at Macquarie which has evolved into the Centre for Language Sciences. He met Bruce Millar and his Canberra colleagues in the

'70s, and later others with a shared passion for speech science from Melbourne, Brisbane and Adelaide. As this local speech community began to emerge, he was instrumental in establishing the first SST Conference in 1986 as a means of bringing Australian and international researchers together. In 1988 he was appointed as Macquarie's first Pro-Vice-Chancellor followed by Deputy-Vice-(Research), Chancellor. He co-authored (with Colin Yallop and later Janet Fletcher), influential textbook 'Introduction Phonetics and Phonology'. In 1993 he left Macquarie to become President of the University of Western Sydney (Hawkesbury) and rose to the challenge of combining three independent Colleges Advanced Education into the structure that was to become Western Sydney University. He had a short role as VC of UWS before his retirement in 1999.

SST86 Canberra - Abstract

HIGH PERFORMANCE DIGITAL HARDWARE SYNTHESISER

Clark, J., E*., Summer field, C**., & Mannell, R*.

*Speech, Hearing and language Research Centre, Macquarie University

**Centre for Speech Technology Research, Edinburgh

ABSTRACT: This paper describes the phonetic aspects of the development of a high-performance real time digital hardware



synthesiser based on five formants in parallel connection, a nasal formant and a zero. The hardware realisation is based on TMS320 digital signal signal processing chip, with a Z80 ancillary processor to manage data communications and control.

Bruce Millar



Bruce Millar emigrated to Australia from UK in 1970 following an honours degree in Physics, a PhD in Human Communication and brief post-doctoral work in parametric analysis of speech. He worked in Canberra for CSIRO and ANU in computing research environments until retirement in 2006. During this time he promoted interdisciplinary speech research community starting in 1972, developing an informal research association in 1978, leading to a national workshop in 1984. and in with members collaboration of workshop the first Australian international conference in 1986. Bruce became the inaugural secretary of the new Australian Speech Science and Technology Association in 1988, and subsequently its president. He was privileged to be invited to work with the Melbourne University Cochlear Implant project in 1977 and to be able to apply his 1969 post-doctoral work to the development of the first operational multi-channel speech processing scheme for what became known as the Australian Bionic Ear, and also to help lead ASSTA during its seminal years to establish a conference series and engage internationally via the hosting of the ICLSP98 conference in Sydney. He was honoured to be awarded Life Membership of ASSTA in 2002 and with Fellowship of the International Speech Communication Association in 2011.

SST86 Canberra - Abstract

QUANTIFICATION OF SPEAKER VARIABILITY

Millar, J.B.

Department of Engineering Physics, Australian National University

ABSTRACT: approach An quantification of the speaker dimension of speech is described. This utilises four phonetically motivated dimensions and a hierarchy of measurements in each, ranging from the macro-acoustics of long-term statistics to the micro-acoustics of the organisation of the syllable. A 33-speaker database of spoken Australian English is used to demonstrate the application of some of the macro-acoustic measurements and their importance for the development of robust speech processing for the Australian bionic ear project.





Michael Wagner

Michael Wagner was Professor of the University Computing at of Canberra from 1996 to 2014 and Emeritus Professor since 2014, specialising in software engineering, biometrics and computer security. He was the Head of the School of Computing from 1996 to 2001, Head of the Discipline of Software Engineering from 2005 to 2011 and the Director of the National Centre Biometric Studies from 2006 to 2010. He was also the Principal Research Scientist of the Australian National University's TRUST Multimodal Authentication Project. His research interests are in the areas of speech and speaker recognition; face recognition; characteristics speaker and emotion detection; language, dialect and accent recognition; and forensic speaker recognition. He also held teaching and research positions at TU Munich, Universities of Wollongong and New South

Wales, National University of Singapore and Nixdorf Corporation, as well as visiting positions at Universities of Duisburg, Amsterdam, Pahang, Shandong and Siemens Corporation.

He is now an Honorary Professor in the Research School of Computer Science of the Australian National University and an Honorary Professor for Biometric Security Systems at the Technical University Berlin. In addition, he is the CEO and Chief Scientist of the National Centre Biometric Studies Pty Ltd (NCBS), which is a company specialising in research and consultation in biometrics. particularly scientific forensic speaker recognition utilising cutting-edge voice analysis and statistical tools for the forensic comparison of voice recordings.

SST86 Canberra - Abstract

SPEAKER RECOGNITION EXPERIMENTS WITH THE SYLLABLE INVENTORY OF STANDARD CHINESE

Wagner, M.

Department of computer science University College/ADFA University of New South Wales

ABSTRACT: an approach quantification of the speaker: this paper explores the possibility of using automatic speech recognition as a front-end to a computer for Chinese character processing. A speech recognition experiment has been performed on the complete inventory of second-tone words of Standard Chinese. Two recordings which were made 48 hours after one another were used as test and reference sets. Distances within word clusters are shown to frequently exceed inter -cluster distances for the inventory of 260 syllables.



Peter Blamey



Peter Blamey was a member of the first ASSTA executive from 1988 to 1996 serving as Treasurer and President. He is one of the most respected hearing scientists and inventors both locally and internationally. In 2007, he received the American Academy of Audiology International Award, 2007 for significant and sustained contributions to the field of audiology and to hearing-impaired adults and children worldwide. In 2012 he was awarded the Clunies Ross medal from the Academy of Technological Science and Engineering for taking hearing technology from invention to commercial and clinical outcomes. Peter was a member of Graeme Clark's team at The University of Melbourne, who were responsible for the research that led to the multi-electrode cochlear implant or 'Bionic Ear', now produced bv Cochlear.

In 2002, Peter and Dr Elaine Saunders cofounded Dynamic Hearing Pty Ltd for the further development and commercialisation of sound processing technologies for hearing aids.

Peter currently uses his scientific research and business skills as the Deputy Director (IP and Commercialisation) at the Bionics Institute where he applies advanced bionic technologies for the development of Bionic Eyes and devices for the detection and suppression of epileptic seizures.

SST86 Canberra - Abstract

A MODEL OF AUDITORY-VISUAL SPEECH PERCEPTION

Blamey, P., J. & Clark, G. M. Department of Otolaryngology University of Melbourne

ABSTRACT: Α mathematical relating the probabilities of correctly recognising speech features, phonemes, and words was tested using data from the clinical trial of a multiple-channel cochlear implant. A monosyllabic word test was presented to the patients in the conditions hearing alone (H), lipreading alone (L), and hearing plus lipreading (HL). The model described the data quite well in each condition. The model was extended to predict the HL scores from the feature recognition probabilities in the H and L conditions. The model they may be useful for the evaluation of automatic speech recognition devices as well as hearingimpaired people.



John Ingram



John Ingram worked as a child psychologist before pursuing postgraduate studies to obtain a M.Ed. (Educational Psychology) PhD (Phonetics Psycholinguistics). He has taught Educational Psychology, Speech Pathology and Linguistics programs in Australia and Canada including the School of English Media Studies & Art History, at the University of Queensland, where he taught in the Linguistics and Cognitive Science programs. He was a founding executive member of ASSTA in 1988, serving until 1992. He has also served as Vice President of the Australian Linguistic Society. John

has long-standing research interests in Phonetics and Cognitive Science and his phonetics research focused mainly on interphonetics language and phonology: perceptual and acoustic correlates of 'foreign accent' and accent change; connected speech processes in accented English; prosodic transfer effects in second language learning; vowel formants as indices of phonetic change and speaker identity. A unifying theme underlying these research topics is an attempt to understand human capabilities for speech understanding. John retired from academia in 2011.

SST86 Canberra - Abstract

ACOUSTIC CORRELATES OF ACCENT CHANGE: VIETNAMESE SCHOOL CHILDREN ACQUIRING AUSTRALIAN ENGLISH

Ingram, J. & Pittam, J. Department of English University of Queensland

ABSTRACT: Changes in vowel formant trajectories in four vocalic nuclei for 10 Vietnamese immigrant schoolchildren acquiring Australian English are reported. Changes are in conformity with predictions based on comparative phonetic/phonological analysis of the two languages.



ASSTA Research Event

1st Workshop on Sociophonetic Variability in the English Varieties of Australia

https://www.griffith.edu.au/conference/sociophonaus2016

Gerry Docherty (Griffith University)

Janet Fletcher, Debbie Loakes (University of Melbourne,

ARC Centre of Excellence for the Dynamics of Language)

On July 4-5, we held a two day workshop on sociophonetics at the picturesque Ship Inn, located on Brisbane's Southbank

We heard from three keynote speakers, and presenters of eleven submitted papers, on topics about social-indexical phonetic variation in the English varieties in Australia.

Our keynote addresses were:

- Felicity Cox, who talked about the legacy and future of sociophonetics in Australia.
- **Jonathan Harrington**, who came over from IPS in Munich, and talked about /s/ retraction in Australian English
- Paul Warren, who visited from NZ to talk about the sociophonetics of Uptalk in Australasian varieties of English.

Topics covered production and perception of vowel systems as well as socially motivated variation in consonant production. It was also great to hear about social patterning of English spoken across the country – in Perth, Sydney, Melbourne, regional Victoria and Queensland. We heard papers about mainstream Australian English, 2nd generation speakers, as well as L1 Aboriginal English speakers. As well as specific research papers, we also hard from Rosey

Billington and Josh Clothier who asked us to (re) consider the ways in which we talk about our research participants, Simon Gonzalez and Gerry Docherty who talked about analysis methods and tools, and Steve Cassidy who gave us a run through of how to access AusTalk in Alveo. Steve reminded us of our responsibilities to give back to the AusTalk project as well, for example by returning any transcriptions for others to see/ use. You can read some information about accessing AusTalk in Alveo here:

http://alveo.edu.au/2015/10/14/accessing-austalk-in-alveo/

We thank everyone for attending and presenting such interesting work, and special thanks to our keynote speakers for accepting invitations to address the group. We would also like to thank ASSTA for their support of our event through the ASSTA Research Event Award, and The ARC Centre of Excellence for the Dynamics of Language and Griffith University for their contributions.

There was widespread agreement that the workshop was extremely valuable forum for the growing sociophonetics community in Australia, and that a second Workshop should be held in 2018.



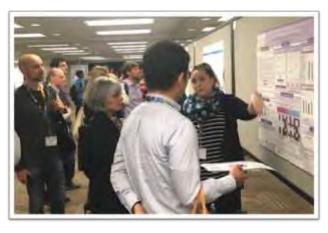
ASSTA Travel Reports

INTERSPEECH September 8 – 24, 2016

Sarah Fenwick
The MARCS Institute
Western Sydney University

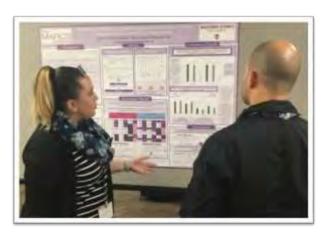
This year the conference INTERSPEECH was held in San Francisco, California, at the Hyatt Regency (September 8-12). INTERSPEECH is an interdisciplinary conference, that calls for papers from a range of areas that focus on spoken language processing and speech technology, from theoretical perspectives to real-world applications. It is a wide-scale event, attracting approximately 1300 attendees each year, and is generously sponsored from many well-known companies such as Apple, Google, Facebook and Microsoft.

Each day began with a Keynote. The first of which was ISCA Medalist John Makhoul, presenting on the topic "A 50-Year Retrospective on Speech and Language Processing", followed by Edward Chang: "The Human Speech Cortex", Anne Fernald: "Talking with Kids Really Matters: Early Language Experience Shapes Later Life Chances" "Ketchup, and Dan Jurafsky: Interdisciplinary, and the Spread of Innovation in Speech and Language Processing". remainder of each day was filled with oral, poster and show and tell sessions; there was always something different to learn about, with 8 concurrent presentation streams on at a time!



The paper that I presented is entitled "The influence of Modality and Speaking Style on the Assimilation Type and Categorization Consistency of Non-Native Speech". I explained how non-native perceivers' ability to categorise non-native speech segments is influenced by the type of articulatory information available (i.e., auditory-only, auditory-visual, visual-only), and the style of production used (i.e., citation speech vs. clear speech). A key finding of this study is that the extent to which auditory-visual and clear speech is beneficial for cross-language perception may depend on the similarities between the articulatory characteristics of native and nonnative consonants. This is the first time I have presented a poster at an international conference, and the reception was very welcoming! I was able to discuss my research with attendees from a range of areas, and gain valuable feedback that will assist with the writing of my future publications, as well as my thesis. Interestingly, my research also gained interest from those not directly within my field (e.g., automatic speech recognition), which demonstrates the benefit of networking at an interdisciplinary conference!

Overall, attending INTERSPEECH 2016 was a fantastic opportunity to present my research, gain feedback, as well as discover new information about upcoming research. Most importantly, I would like to extend my thanks to ASSTA – I am very appreciative to have been selected for a Travel award that provides student members like myself the opportunity to seek funding to attend international conferences.





ASSTA Travel Reports

Speech Prosody 2016 May 31 – June 3, 2016

Saya Kawase

The MARCS Institute Western Sydney University

I attended Speech Prosody 2016, held at Boston University, USA. Speech Prosody is known as the only recurring international conference focused on prosody in the fields of Linguistics, Computer Science, Electrical Engineering, Speech and Hearing Science, Psychology, and related disciplines. This year, a total 262 papers were presented including 48 talks (14 special session talks for 3 special sessions) and 214 posters (15 special session posters for 3 special sessions). The conference started with a plenary talker every day including Associate Professor Aoju Chen (Universiteit Utrecht), Assistant Professor Laura Dilley, Professor Rupal Patel (Northeastern University) and Professor Patrick Wong (Chinese University of Hong Kong). In addition to the amazing keynote speakers, there were four special sessions: Rising intonation in English and beyond (Organizers: Meghan Armstrong, Page Piccinini, Amanda Ritchart), Sentence-final particles and intonation: Similarities, interactions, historical relationships (Organizers: James Sneed German, K. K. Luke), Sources of Prosodic Variation across Recording Settings (Organizers: Oliver Niebuhr, Petra Wagner), Speaker comfort and communication in noisy environments (Special Poster Session, Organizers: Oliver Niebuhr, Simone Graetzer).

I was fortunate enough to be invited to one of the special sessions, "Speaker comfort and communication in noisy environments" to present a paper, titled "Perceiving foreign-accented auditory-visual speech in noise: the influence of

visual form and timing information." During my presentation, I received a number of insightful comments and feedback which would surely help my writing of PhD dissertation as well as future publications. One of the unique aspects of this conference was the state of the art technique used for remote participation including conference live stream, video archive, and even robotic access to poster sessions! I have never seen any conferences where conference organizers were deploying two mobile telepresence robots (wearing conference T-shirts) to interact by audio/video with presenters.

I am very grateful to ASSTA for supporting my attendance at Speech Prpsody 2016. This was my first attendance of Speech Prosody and I look forward to attending the next one in 2019.

The 15th Conference on Laboratory Phonology 2016

July 13 – 17, 2016

Nhung Nguyen
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I was granted an ASSTA travel award to attend the 15th conference on Laboratory Phonology held at Cornell University in Ithaca, New York. The conference spanned three days (July 14 - 16), with five satellite workshops happening on the day before (July 13) and four on the day after (July 17). During the three-day main conference, there were seven oral presentations from students and eleven from non-students, and 184 poster presentations from both students and nonstudents. The oral and poster presentations were divided into six sessions each. The six sessions of the oral presentations followed research themes production dynamics, such as perception organization, dynamics, prosodic lexical



ASSTA Travel Reports

dynamics and memory, acquisition and life-span, and social network dynamics. I was particularly interested in the perception dynamics and social network dynamics sessions since they are directly related to my PhD project. These sessions involved many interesting studies and the corresponding discussants summed up those studies with insights into the big picture of the production-perception loop and its relation to social networks. In the perception dynamics session, the message that I took away was that from timing lag to anticipatory coarticulation to relative cue weighting numerous factors are important to speech perception. In the social network dynamics session, the question raised by the discussant 'Can perception experiments socio-indexical information?' ringing in my head, especially when I thought the study I was about to report would be able to answer that question. I also learned about new findings and new methodologies and was exposed to unfamiliar theoretical concepts at the various posters I visited.

It was the first conference that I have ever presented a poster at (I was always accepted for an oral presentation at the previous conferences I went to, so this was a new experience for me). I was excited as well as nervous about my first poster experience. In addition, I also submitted abstracts to deliver a poster presentation at the Social Meaning satellite workshop happening on July 13 and an oral presentation at the Structure in Variability workshop happening on July 17, and both were accepted. Therefore, I had three presentations – two posters and one talk – in total at LabPhon 2016. I was very excited about the opportunity to report my studies and their findings to the prestigious audience, many of whom I cited. Indeed, I was very pleased with my LabPhon experiences. My poster presentations attracted a good crowd who asked questions and gave me their thoughts on the studies. My oral presentation attracted a number of suggestions, not only at the Q and A time but also afterwards in person and via email. The feedback I received from the LabPhon audience, especially from the researchers I cited, would greatly benefit the corresponding manuscripts that I was preparing, particularly because the journal of LabPhon was the target of one of my manuscripts.

I am thankful to ASSTA for having granted me the travel award that helped create my wonderful professional experiences at LabPhon 2016.

LabPhon15 5