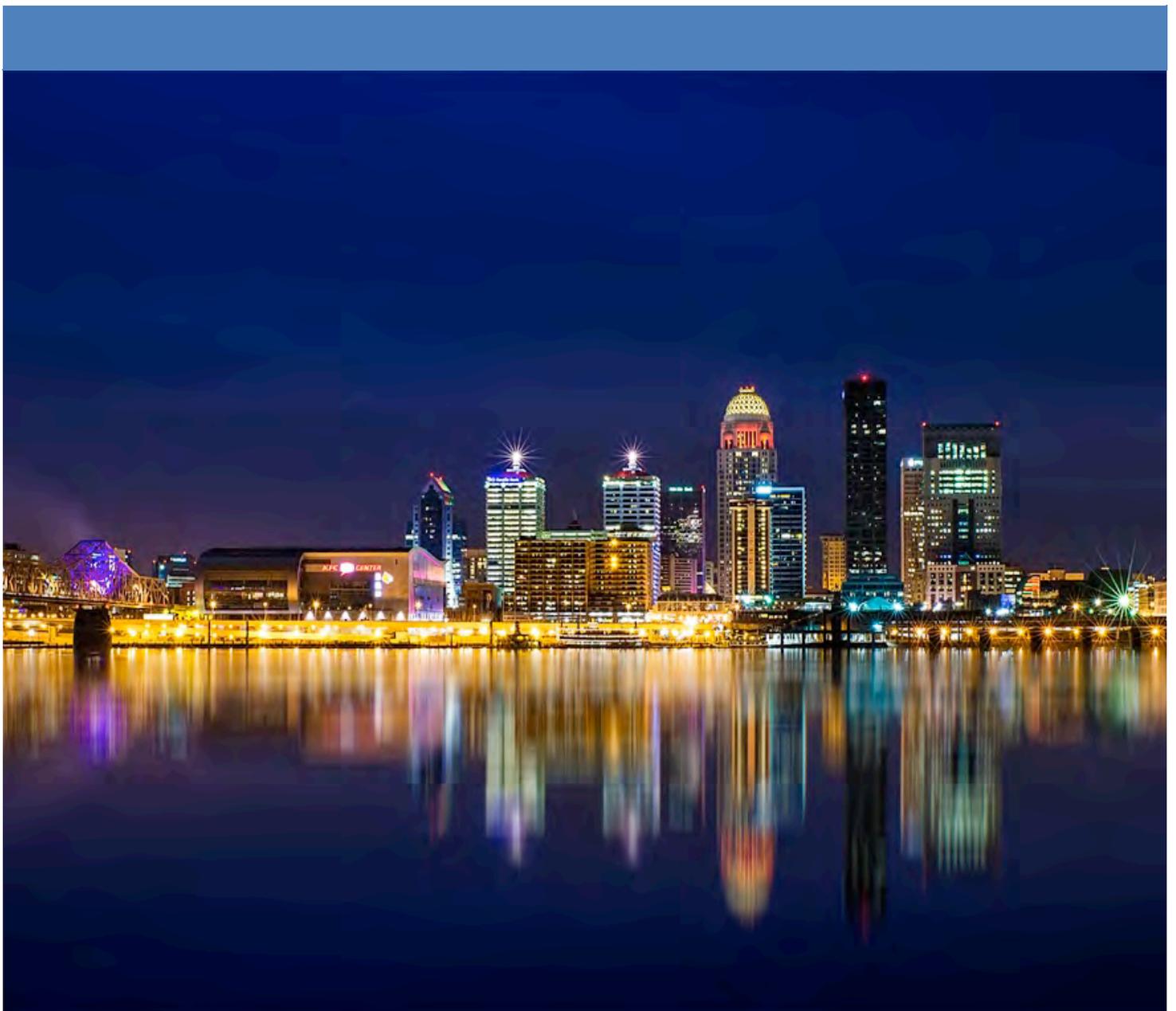




Third International Meeting

University of Louisville • Louisville, Kentucky • July 27-28, 2017



Conference Information

Internet & Audiology

The internet and modern information technology have had a major impact in health care and audiology. Not only are we using information technology in the clinic (e.g., websites, email, electronic records), we are also coming to depend on it for audiological research.

In the late 1990's the first internet-based application was created in the area of audiology—a psychological treatment for tinnitus. Since then, there have been many other applications such as online hearing screening, online questionnaires, and audiological rehabilitation to name a few.

The purpose of the conference is to present innovative research and to provide participants with opportunities to discuss this emerging field. This year's conference will focus on four general topics:

1. Barriers and facilitators to the implementation of telepractice
2. Methodology of implementation of internet-based research and service delivery
3. Big data
4. Ethical issues related to internet-based research and service delivery

Meeting Co-Chairs

Jill Preminger, Ph.D.
University of Louisville School of Medicine

Ariane Laplante-Lévesque, Ph.D.
Eriksholm Research Centre
Linköping University

Scientific Committee

Michelle Hughes, Ph.D., CCC-A
Boys Town National Research Hospital

Gabrielle Saunders, Ph.D.
National Center for Rehabilitative Auditory Research

Program Committee

Elizabeth Cash, Ph.D.
University of Louisville School of Medicine

Elisabeth Ingo, M.Sc.
Linköping University

Annette Cleveland Nielsen, Ph.D.
Eriksholm Research Centre

Ann Rothpletz, Ph.D.
University of Louisville School of Medicine

Elisabet Thorén, Ph.D.
Eriksholm Research Centre

Conference Information

On-Site Registration

The registration desk will open at 07:45 daily, and is located in the foyer of the Clinical Translational Research Building.

Remote Attendance

Remote participation utilizes the BlueJeans video collaboration platform. An app is available for Mac, PC, iPhone and Android at bluejeans.com. Remote registrants will receive instructions and a meeting ID via email. **Note that to join the meeting the login name must match the name entered on the remote registration form.**



WiFi

UofL Visitor wireless access

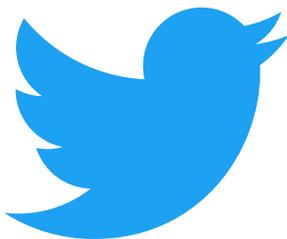
Guests can use the university's wireless network while on-campus. Sessions are limited to 6 hours and will automatically log out after 30 minutes of inactivity.

To get online

- Select the SSID **ulvisitor** from your device's list of available wireless networks.
- Open a browser and load any URL; you will be redirected to an access page (on some mobile devices, the access page should open automatically).
- Enter a valid email address
- Click **Accept** to acknowledge the terms of use. Your browser will be sent to a confirmation page and from there you can get online.

Note

If your home page is set to a secure web page (a url that starts with "https://"), then ulvisitor wireless will be unable to redirect your browser to our login page. Changing your home page setting to a non-secure page (e.g., a url that starts with "http://") should correct this problem.



Share your conference experiences on social media!

Follow us on twitter **@IAud17**

Use **#IntAud17** when posting

Location Information

Accommodations

Hotel rooms are available at the Hampton Inn Louisville Downtown, 101 East Jefferson Street, Louisville, Kentucky 40202. The hotel is a 14-minute walk from the conference location.

Location

The conference will be held at the University of Louisville School of Medicine Clinical Translational Research Building, Rooms 101-102 at 505 South Hancock Street, Louisville, Kentucky 40202.

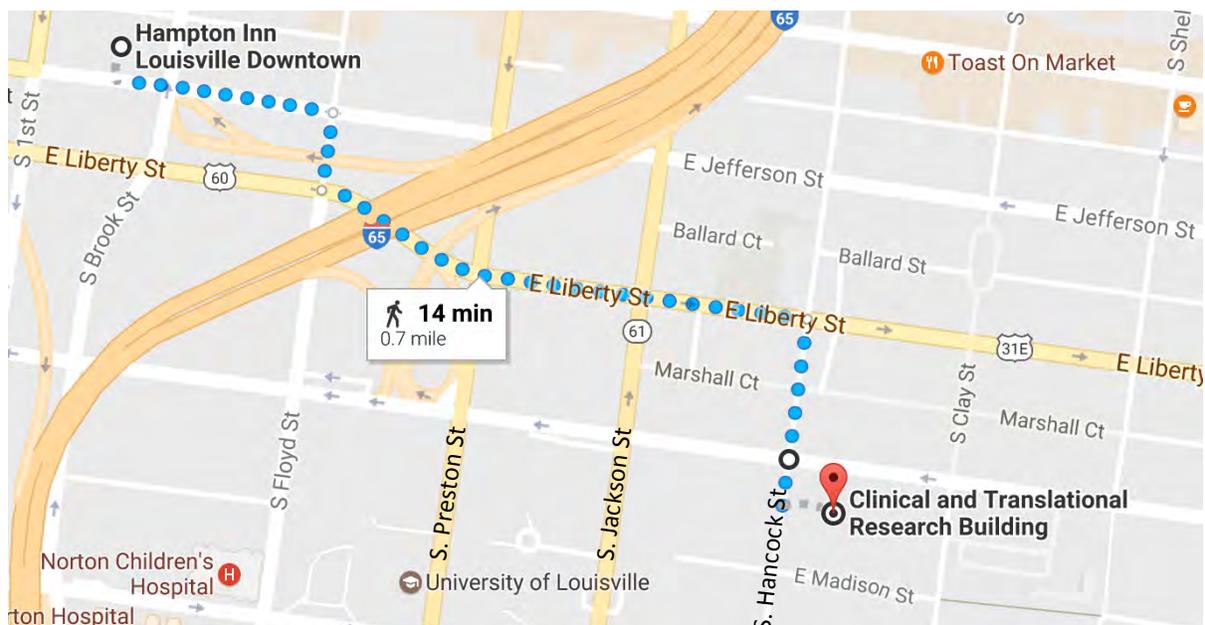


Transportation

The conference hotel has a free shuttle that will run between the hotel and conference site. The shuttle can accommodate ten people per trip and runs on a first-come, first-serve basis.

- In the mornings, three trips will be offered from 7:30 - 8:00 am
- On Thursday afternoon, three trips will be offered from 5:45 - 6:15 pm
- On Friday, three trips will be offered from 5:00 - 5:30 pm

The ZeroBus is a free downtown bus that circles the downtown Louisville area and runs every 15 minutes. Taxis are available via Green Cab (greentaxicab.com) and Yellow Cab (yellowcablouisville.com). Uber (uber.com) and Lyft (lyft.com) are also available in the Greater Louisville area.



We gratefully acknowledge our sponsors for this year's event



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**Support of our program and trainees is also provided by the National Institutes of Health/
National Institute on Deafness and Other Communication Disorders (R13DC016547)**



National Institute on
Deafness and Other
Communication Disorders

Schedule At-A-Glance

Thursday July 27		Friday July 28	
7:45	Registration	Registration	7:45
8:00	Opening Remarks	Opening Remarks	8:00
8:45	Keynote Elizabeth Krupinski Making Telehealth Mainstream: Challenges & Winning Strategies	Keynote Harvey Dillon § Potential of Large Scale Data in Hearing Rehabilitation	8:30
9:45	Podium Session A1 Helen Cullington § Cochlear Implant Care: Putting Clients in Charge	Podium Session C1 Ariane Laplante-Levesque Evotion: A European Research Project Generating Big Data Evidence & Decision Support for Public Health Hearing Policies C2 Moumita Choudhury Social Media and Hearing Aids	9:30
10:05	Break	Break	10:10
10:20	Podium Session A2 Lisette van Leeuwen § Barriers and Enablers to the Implementation of an ICF-based e-intake Tool in Clinical Audio-Otology Practice A3 Filiep Vanpoucke Empowering Senior Cochlear Implant Users in their Home	Panel Discussion	10:25
11:00	Demo Session A1 Wendy Steuerwald Cincinnati Children's Hospital Medical Center Teleaudiology Challenges and Resolutions A2 Georgina Blasco § Department of Defense Teleaudiology A3 Alessia Paglialonga § Characterization of Features of Mobile Apps by Automated Extraction of Information from the Web	Keynote De Wet Swanepoel mHealth in Hearing Care: Research Evidence and Priorities	11:10
12:00	Lunch	Lunch	12:10
13:00	Panel Discussion	Podium Session D1 Elisabet Thoren Outcome of Feasibility Study: Eriksholm Guide to Better Hearing D2 Michelle Hughes Remote Programming for Pediatric Cochlear Implant Recipients D3 Eldre Beukes Audiology-guided Internet-based Cognitive Behavioural Therapy for Adults with Tinnitus in the UK D4 Annette Cleveland Nielsen User Designed and Innovated eHealth Solutions for Service Delivery to Elderly Persons with Hearing Impairment D5 Jihjing Xu Assessing Auditory Ecology of Younger Normal-hearing Listeners and Older Hearing Aid Wearers Using a Smartphone/ Hearing Aid-based Ecological Momentary Assessment System	13:10
13:45	Keynote Elizabeth Buchanan Ethical issues Related to Internet-based Research and Service Delivery	Theme D Methodology	14:50
14:45	Podium Session B1 Derek Hoare Ethical Considerations in a Qualitative Analysis of Threads in Online Support Groups for Tinnitus		
15:05	Break		
15:20	Panel Discussion	Demo Session D1 Todd Houston Using Distance Technology to Connect, Communicate & Enhance Language Learning in Children with Hearing Loss D2 Marc Shapiro Open Source Mobile Software for Distributed Studies of Hearing D3 David Stockdale Take On Tinnitus - What We Learned	15:05
16:05	Poster Session	Panel Discussion	16:05
18:05	Adjourn	Closing Remarks	16:50
19:00	Networking Dinner	Adjourn	17:05

§ Presentation via remote broadcast

Keynote Speakers

Barriers & Facilitators



Elizabeth Anne Krupinski, Ph.D.
Professor, Vice Chair for Research
Department of Radiology & Imaging Sciences
Emory University

Making TeleHealth Mainstream: Challenges & Winning Strategies

Ethics



Elizabeth Buchanan, Ph.D.
Endowed Chair in Ethics
Director, Center for Applied Ethics
University of Wisconsin-Stout

Ethical Issues Related to Internet-Based Research and Service Delivery

Big Data



Harvey Dillon, Ph.D.
Director
National Acoustic Laboratories
Australia

Potential of Large Scale Data in Hearing Rehabilitation

Methodology



De Wet Swanepoel, Ph.D.
Professor
Department of Speech-Language Pathology and Audiology
University of Pretoria

mHealth in Hearing Care: Research Evidence and Priorities

Theme: Barriers & Facilitators

Moderator: Gabrielle Saunders, Ph.D.

08:15

Opening Remarks

Jill Preminger, Ph.D.
Jeffrey Bumpous, M.D.
Gerhard Andersson, Ph.D. §

08:45

Keynote

Elizabeth Krupinski, Ph.D.

Making Telehealth Mainstream: Challenges & Winning Strategies

Telehealth is changing the healthcare environment and patient care. It is continually evolving as technology and opinions change, but still faces challenges. Appreciating the evidence for the effectiveness and efficiency of telehealth provides the foundation for expansion and new delivery models by educating those who formulate policy and practice guidelines.

09:45

Podium Session

Helen Cullington, Ph.D. §

Cochlear Implant Care: Putting Clients in Charge

Sixty adults using cochlear implants participated in a RCT. One group used tools to care for their implant at home; a control group followed the usual care pathway. The remote care group were more empowered and had better hearing after the trial. Feedback was positive, especially for home hearing testing.

10:05

Break

Coffee & tea in foyer

10:20

Podium Session

Lisette van Leeuwen, M.Sc. §

Barriers and Enablers to the Implementation of an ICF-based e-intake Tool in Clinical Audio-Otology Practice

To identify patients' and clinicians' perceived barriers and enablers to the implementation of an ICF-based e-intake tool in clinical Audio-Otology practice, interviews were held. Patients were mostly positive about the tool, while clinicians reported some important barriers. The identified barriers and enablers will be incorporated in the implementation strategy.

Filiep Vanpoucke, Ph.D.

Empowering Senior Cochlear Implant Users in their Home Environment

After cochlear implantation (CI) the typical after care path is quite intense, consisting of multiple visits to the clinic for device fitting, counseling, and hearing habilitation. We created an application offering information on living with an implant, hearing tests and device diagnostics. We will show preliminary results from user evaluations.

11:00

Demonstration Session

Wendy Steuerwald, Au.D.

*Cincinnati Children's Hospital Medical Center
Teleaudiology Challenges and Resolutions*

CCHMC Teleaudiology is focused on using technology as a method to improve patient access and care. We are offering some services and answering questions, with a focus on hearing device troubleshooting at the patient's home and school and international cochlear implant mapping.

Georgina Blasco, Au.D. §

Department of Defense Teleaudiology

Teleaudiology proof-of-concept services have proven to be of substantial benefit within the Department of Defense (DoD). Logistical feasibility and technological considerations for providing remote audiology services in the DoD have been evaluated with the goal to expand services across DoD Contiguous United States (CONUS) and Outside the Contiguous United States (OCONUS).

Alessia Paglialonga, Ph.D. §

Characterization of Features of Mobile Apps by Automated Extraction of Information from the Web

In the perspective to offer tools to assist patients and hearing healthcare professionals in informed adoption of apps for improved service delivery, our research develops methods to characterize apps and to identify their features. In this study, we developed an automated method to extract apps' features directly from the Web.

12:00

Lunch

Provided in foyer

13:00

Panel Discussion

Elizabeth Buchanan, Ph.D.

Jesse Wright, M.D., Ph.D.

Mark Rothstein, J.D.

Theme: Ethics

Moderator: Jill Preminger, Ph.D.

13:45

Keynote

Elizabeth Buchanan, Ph.D.

Ethical issues Related to Internet-based Research and Service Delivery

The internet, both as a media and local of research, has afforded myriad disciplines with unique research opportunities, while pushing boundaries on standard methodologies and ethical norms. This presentation will provide an overview of current Internet research practices in general with a focus on the unique ethical issues in audiological Internet-based research.

14:45

Podium Session

Derek Hoare, Ph.D.

Ethical Considerations in a Qualitative Analysis of Threads in Online Support Groups for Tinnitus

Online support group are a popular coping strategy for those living with tinnitus. To study the potential benefits or harm of participation we examined posts in four online groups in the public domain. To do this without informed consent several ethical issues related to study design and reporting were considered.

15:05

Break

Foyer

15:20

Panel Discussion

16:05

Poster Session

Refreshments in foyer

18:05

Adjourn

19:00

Networking Dinner

Bluegrass Brewing Company
Four Roses Bourbon Barrel Loft

Join Us for Dinner and Networking



7 pm – 9 pm
Thursday, July 27, 2017

Dinner, Coffee & Tea Provided
Cash Bar



300 West Main Street @ 3rd St.
2nd Floor Bourbon Barrel Loft
Louisville, Kentucky 40202
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bbcbrew.com/bourbon-barrel-loft



Theme: Big Data

Moderator: Michelle Hughes, Ph.D., CCC-A

08:15 **Opening Remarks**

Ariane Laplante-Lévesque, Ph.D.

08:30 **Keynote**

Harvey Dillon, Ph.D. §

Potential of Large Scale Data in Hearing Rehabilitation

This talk will show some relationships between information that can readily be collected from adult clients at the time of their hearing assessment, characteristics of the devices they are fitted with, characteristics of the clinicians providing their rehabilitation, and outcomes reported three months after hearing aid fitting.

09:30 **Podium Session**

Ariane Laplante-Lévesque, Ph.D.

Evotion: A European Research Project Generating Big Data Evidence & Decision Support for Public Health Hearing Policies

This project develops a platform that enables: 1) the collection of heterogeneous data related to hearing loss and 2) the performance of big data analytics. This will generate evidence and decision support for holistic public health policies regarding hearing loss prevention and treatment in adults in Europe and beyond.

Moumita Choudhury, Au.D.

Social Media and Hearing Aids

In the United States, 61% adults access the Internet for health and medical information. The Internet can be used to improve patient education, patient care, and professional networking. This study investigates the utilization pattern of social media hearing aid (HA) user communities. Specifically, the meso-level social processes of HA communities in social media websites were studied.



10:10 **Break**
Coffee & tea in foyer

10:25 **Panel Discussion**

Theme: Methodology

Moderator: Ariane Laplante-Lévesque, Ph.D.

11:10 **Keynote**
De Wet Swanepoel, Ph.D.
mHealth in Hearing Care: Research Evidence and Priorities
Hearing loss is a pervasive chronic disability affecting a billion people annually. Novel solutions, capitalizing on advances in technology and connectivity, demonstrate promise for increasing access, improving quality and reducing costs of care. Evidence on implementation of eHealth initiatives will prioritise future hearing care research.

12:00 **Lunch**
Provided in foyer

13:10 **Podium Session**
Elisabet Thorén, Ph.D.
Outcome of Feasibility Study: Eriksholm Guide to Better Hearing
Recent studies show that online audiological rehabilitation programmes have the potential to reduce self-reported residual hearing problems in experienced hearing aid users. When using online tools and internet-supported rehabilitation in a cost-effective way, more people can access comprehensive rehabilitation programmes that go well beyond the basic fitting of hearing aids.

Michelle Hughes, Ph.D.

Remote Programming for Pediatric Cochlear Implant Recipients

This study examined the feasibility of remotely programming cochlear-implant (CI) sound processors for pediatric recipients using conditioned play audiometry and visual reinforcement audiometry. Results show that both test methods yield behavioral thresholds that are similar to those obtained in the traditional in-person condition.



Eldré Beukes, M.Sc.

Audiology-guided Internet-based Cognitive Behavioural Therapy for Adults with Tinnitus in the UK

Audiology-guided Internet-based Cognitive Behavioural Therapy for a UK population has been designed and evaluated in a three-phase clinical trial. Feasibility and efficacy were established for both tinnitus and the associated comorbidities. Results include longer-term outcomes, outcome predictors and comparison of this intervention to that of standard face to face care.

Annette Cleveland Nielsen, Ph.D.

User Designed and Innovated eHealth Solutions for Service Delivery to Elderly Persons with Hearing Impairment

We involve elderly persons with hearing impairment, their significant others, and audiologists in innovating and designing eHealth solutions for service delivery of hearing rehabilitation. Our participatory User Innovation Management method reveals insights on the complex interplay related to eHealth assisted hearing rehabilitation within an eHealth ecosystem and specifies user requirements.

Jingjing Xu, Ph.D.

Assessing Auditory Ecology of Younger Normal-hearing Listeners and Older Hearing Aid Wearers Using a Smartphone/Hearing Aid-based Ecological Momentary Assessment System

The purpose of this presentation is to demonstrate a smartphone/hearing aid-based ecological momentary assessment system for examining a listener's auditory ecology. For both younger normal-hearing listeners and older hearing aid wearers, data collected for characterizing different listening environments from subjective and objective measures will be presented and discussed.

14:50

Break

Coffee & tea in foyer

§ Indicates presentation via remote broadcast

15:05

Demonstration Session

K. Todd Houston, Ph.D., CCC-SLP, LSLS Cert. AVT

Telepractice: Using Distance Technology to Connect, Communicate, & Enhance Language Learning in Children with Hearing Loss

Today, an array of distance technology is available to assist early interventionists, speech-language pathologists, and audiologists to enhance communication.

Marc Shapiro

Open Source Mobile Software for Distributed Studies of Hearing

We present an open source mobile application ("Open TabSINT") that enables researchers to administer customized hearing tests and questionnaires across multiple sites. The system is designed to provide researchers flexibility in deploying human research protocols while minimizing the effort required in administering the study.

David Stockdale

Take On Tinnitus - What We Learned

The British Tinnitus Association started examining and assessing how to produce an interactive 'e-learning' programme on tinnitus in 2014 (attending the first Internet Audiology conference was an important feasibility step!) launching Take on Tinnitus in September 2016. The process the BTA went through offers some learning and insight for others considering a similar pathway.

16:05

Panel Discussion

16:50

Concluding Remarks

Ariane Laplante-Lévesque, Ph.D.

17:05

Adjourn

§ Indicates presentation via remote broadcast

Poster	Authors	Title & Abstract
1	Paula Maria Pereira Paiva, Bruno Penteado, Marina Morettin Zupelari, Natália Barreto Frederigue Lopes, Orozimbo Alves Costa, Seiji Isotani, Deborah Viviane Ferrari	<p><i>Educational data mining for understanding students' behavior in a virtual learning environments: a case study</i></p> <p>This case study presents the potential of educational data mining (EDM) techniques to understand students' behavior in virtual learning environments. EDM enabled the recognition of interaction patterns among students, tutor and professors. The results suggest that EDM can help course managers make timely and effective decisions during pedagogical practice.</p>
2	Fabiana Souza Pinto-Azenha, Esteban A. Lopez, Deborah V. Ferrari	<p><i>MoBALS - a smartphone based remote microphone for people with mild hearing losses: preliminary results</i></p> <p>A smartphone based remote microphone (MoBALS) was compared to hearing aids and a traditional FM system in 20 individuals with mild sensorineural hearing losses. S/N ratios (HINT) for unaided and aided conditions were significant lower than those for MoBALS and FM. Other MoBALS' benefits will be discussed.</p>
3	 Bruno Elias Penteado, Paula Maria Pereira Paiva, Marina Morettin-Zupelari, Natália Barreto Frederigue Lopes, Deborah Viviane Ferrari, Seiji Isotani	<p><i>Educational data mining methods: opportunities for teaching and learning in Audiology</i></p> <p>Educational data mining combines different methods to help understand how people learn and to create tools to support the learning process. This work presents an overview of EDM methods and their potential application for teaching and learning in Audiology. A taxonomy is presented with five basic categories and corresponding examples.</p>
4	Gabriella Tognola, Alessia Paglialonga, Alessandra Murri, Francesco Pincioli, Domenico Cuda	<p><i>An application towards text analytics and cognitive computing for clinical big-data in aged people with hearing disabilities</i></p> <p>This contribution presents the first attempt in the hearing healthcare, to design and develop an easy-to-use pre-prototype clinical system for extracting, collating and analyzing audiological big-data from the diversified audiological free-text notes of the patient record. We will illustrate the results obtained from the evaluation phase of such a pre-prototype in the clinical management of aged people with hearing disabilities.</p>

Poster	Authors	Title & Abstract
5	Dennis Barbour, Roman Garnett, Xinyu Song	<p><i>Online Machine Learning Audiometry</i></p> <p>The limiting factor in traditional audiometry is the stipulation for a human-centric methodology. By replacing human inference at intermediate steps with advanced machine learning, tremendously more useful diagnostic information becomes available for clinicians to evaluate patient health.</p>
6	Jesse Norris, Deanna Meinke, Odile Clavier	<p><i>Mobile technology for booth-less audiometry</i></p> <p>Conducting audiometry using internet technologies is difficult because of the need for a controlled noise environment, as well as automated test paradigms. We present the results of two human studies conducted with a prototype noise attenuating, wireless audiometric headset that pairs with a mobile device to administer automated audiograms.</p>
7	Derek Hoare, Kate Greenwell, Magdalena Sereda, Neil Coulson, Adam Geraghty, Debbie Featherstone	<p><i>Identifying the factors that influenced the implementation of an internet-based intervention for tinnitus self-management</i></p> <p>This presentation will describe how the person-based approach to intervention development was used to evaluate and optimise an internet-based intervention for tinnitus self-management. Specifically, this approach allowed us to understand and accommodate users' perspectives into intervention development, and identify potential implementation and contextual factors that may influence its delivery.</p>
8	Katjia Lund, Flemming Wang Jensen	<p><i>Change based learning in educational hearing loss rehabilitation</i></p> <p>This study evaluates a method to promote quality and efficiency in educational rehabilitation among employees with hearing loss. The method induces structure and opportunities for interdisciplinarity. Participant data provides information on how to prioritize the resources and paves the way for the development of a digital version of the method.</p>

Poster	Authors	Title & Abstract
9	Harvey Abrams, Luodi Yu, Aparna Rao, Yang Zhang, Philip C. Burton, Dania Rishiq	<p><i>Changes in Cortical Functional Connectivity for Audiovisual Speech Perception Associated with Hearing Aid Use with or without Auditory Training</i></p> <p>In this pilot experiment, we tested whether and how hearing aid use and the use of a commercially available auditory training program, ReadMyQuips (RMQ), changed cortical functional connectivity for audiovisual speech perception as measured by fMRI. The results showed initial evidence of facilitation for audiovisual speech perception from hearing aid use with additional benefit from the RMQ training program.</p>
10	David Moore, Oliver Zobay, Robert MacKinnon, Bill Whitmer, Michael Akeroyd	<p><i>Does leisure music listening cause hearing loss?</i></p> <p>An internet-based experiment asked 17–75 y.o. about music listening history and current hearing. Objective measure used high-frequency speech-in-noise. We found a very weak relation between speech intelligibility and music exposure. Personal music player listening did not reduce speech intelligibility. Self-reported difficulty and tinnitus showed a small increase with music exposure.</p>
11	Charles S. Watson, Gary R. Kidd, James D. Miller	<p><i>The US National Hearing Test</i></p> <p>The US National Hearing Test is a digits-in-noise test that has been taken by 100,000+ callers, roughly 80% had estimated hearing loss (HFPTA) in excess of 25 dB in at least one ear. Numbers of callers who failed the test and sought professional help are consistent with other recent reports.</p>
12	Melanie Ferguson, David Maidment, Helen Henshaw, Neil Coulson, Heather Wharrad	<p><i>Personalising hearing m-health information for the smartphone generation</i></p> <p>Smartphones are ubiquitous. Mobile phone-access to the internet more than doubled between 2010 and 2014 (24% to 58%) in the typical first-time hearing aid user age group. Therefore, opportunities for using m-health technologies to deliver hearing healthcare, education, and increase access to hearing-related interventions, are increasing year-on-year.</p>

Poster	Authors	Title & Abstract
13	David Maidment, Melanie Ferguson	<p><i>Alternative listening devices to transform hearing healthcare service delivery</i></p> <p>While the most common clinical intervention for people with hearing loss is hearing aids, the majority of people who would benefit from using hearing aids do not take them up. Alternative listening devices to conventional hearing aids, such as those that can be linked to smartphones, may address this unmet need.</p>
14	Kelly Watts, Rebecca Welles, Pat Zurek	<p><i>Warfighter's Hearing Health Instructional Primer (WHHIP): An app for military hearing conservation programs</i></p> <p>The WHHIP is a free app-based reference source for US military hearing conservation programs. It is available in the Google Play Store for personal Android phones. The WHHIP can provide answers to why protecting hearing is important, why/what devices should be worn, and how to understand hearing test results.</p>
15	Odile Clavier, Marc Shapiro, Kelly White, Lindsay Prusick, David Eddins, Harvey Abrams	<p><i>Mobile Application for Auditory Training and Tinnitus Management</i></p> <p>In this poster, we present a mobile application for auditory training and tinnitus management. The app gives users the option to manage their tinnitus and perform hearing in noise training tasks which are designed as video games to encourage regular use and increase speech-in-noise recognition as well as verbal memory.</p>
16	David Stockdale, Magdalena Sereda, Kiri Newton, Sandra Smith	<p><i>Mobile Applications for Management of Tinnitus</i></p> <p>There is a wide variety of apps that people use to manage their tinnitus. We identified those apps and evaluated their content and quality. People tended to find aspects of apps that helped with tinnitus or accompanying problems. However, majority of people were not aware of apps for tinnitus.</p>



Poster	Authors	Title & Abstract
17	Akilan Rajendran, Vidya Ramkumar, Roopa Nagarajan, Dhulase Subramaniyan B	<p><i>Identification & management of middle ear disorders in community setting - A tele medicine approach</i></p> <p>Middle ear disease (MED) are common among individuals with Cleft Lip and Palate in rural communities. Routine evaluations in hospital are unsuccessful due to travel distance and wage loss. Hence, CBR workers were trained with mobile phone based video otoscope using store and forward telemedicine. Images were stored and uploaded via internet. Audiologist at hospital reviewed and appropriate referrals were made to ENT physician. Among 324 ears, 93 - normal TM, 46 - dull TM, 92 - cerumen, 36 - MED and 57 - poor TM images. Thus, highlights the use of telemedicine enabled video-otoscope in community for identification of MED.</p>
18	Saleth Monica, Vidya Ramkumar, Mark Krumm, Nitya Raman, Roopa Nagarajan, Lakshmi Venkatesh	<p><i>School entry level tele-hearing screening in a town in South India</i></p> <p>Tele-audiology has the potential to circumvent the scarcity of professionals and monetary resource allocation in developing countries. Feasibility of tele-hearing screening was assessed among 3 to 5 year old children in a school located in South India. Concurrence between in-person and telehealth conditions was obtained. Strengths and challenges were documented.</p>
19	Vidya Ramkumar, C.S. Vanaja, K. Selvakumar, James W. Hall, Roopa Nagarajan	<p><i>Validation of DPOAE screening conducted by Village Health Workers using diagnostic tele-Auditory Brainstem Response as gold standard</i></p> <p>In a community based hearing screening program for infants and young children in rural South India, trained village health workers conducted two stage DPOAE screening, and the validity of VHWs screening was evaluated using real-time diagnostic tele-Auditory Brainstem Response carried out through satellite and broadband connectivity at the villages.</p>

New Investigator Award

Poster	Authors	Title & Abstract
20	Neal Ruperto, Valeriy Shafiro, Mike Hefferly, Patricia McCarthy	<p><i>Putting tele-audiology into practice: Audiologists' perspectives</i></p> <p>Audiologists' knowledge, perceptions and attitudes toward tele-audiology can influence its adoption for clinical use. This study uses semi-structured interviews of audiologists in a hospital audiology clinic. It identifies the aspects of tele-audiology that are perceived as most beneficial and problematic in their daily practice and determines strategies for their implementation.</p>
21	Valeriy Shafiro, Neal Ruperto	<p><i>Development of an Internet auditory training program: Lessons from online education</i></p> <p>Internet-based auditory training programs (ATP) may provide a cost-effective and practical means to improve communication for patients with hearing loss. However, the development of effective ATPs involves multiple technical and logistical challenges. Many such challenges can be successfully addressed by adopting design principles and software tools developed in online education.</p>
22	Tia McDonald, Joshua Sevier, Sangsook Choi, Michelle Hughes	<p><i>Options for Remote Speech-Perception Testing with Adult Cochlear-Implant Recipients</i></p> <p>This study examined two options for testing speech perception with cochlear-implant recipients using distance technology. Option 1 involves remotely presenting speech stimuli via direct-connect to the sound processor. Option 2 involves free-field presentation through videoconferencing, and correcting scores based on performance-intensity functions for various reverberation and noise levels.</p>



Student Award

Poster

Authors

Title & Abstract

23

Husmita Ratanjee-Vanmali,
De Wet Swanepoel

Strengthening the role of the audiologist in the digital age: Initial study findings regarding people seeking hearing healthcare online – who are they?

Student
Award

This research project will evaluate whether eHealth can reduce time, cost and improve access to hearing care for adult patients. The main aim is to determine how eHealth could improve audiology treatment and hearing aid outcomes by strengthening the role of the audiologist in the digital age. A secondary aim is to establish and influence evidence-based practice guidelines for hearing healthcare professionals willing to provide eHealth services. Initial study findings will be presented in terms of demographic information, number of visits on the web page, number of participants in research study, number of participants who completed the online DINT (passed and failed), and number of participants who contacted the audiologist for discussion of DINT results before a diagnostic evaluation was confirmed.

24

Laura Coco, Nicole Marrone

The rural health workforce shortage: What are high-priority areas for teleaudiology?

Student
Award

The availability of audiologists impacts the access and quality of hearing health care. Here we present an analysis of the geographic distribution of audiologists relative to the population of older adults in Arizona. Results support developing teleaudiology services to enhance access to care for rural, underserved communities.