

Working Group "Healthcare & Welfare" – Meeting 16

Summary of Meeting #16, January 17, 2024

Agenda

1. Webinars & Physical events during 2024:
 - a. Follow-up on proposals and ideas from meeting # 15 including additional comments and proposals.
 - b. Proposals for possible speakers
 - c. New themes?
2. Collaborative projects, update of proposals, indication of possible project consortia.
3. News from DSC secretariate
4. A.O.B.

Ad 2: Webinarer & fysiske events i 2024

#	Subject	Background
7.a	Speech analysis, pathology, speech recognition	<p>The CoRal Project - Danish Speech Dataset December 7th 2023</p> <p>Speakers:</p> <ul style="list-style-type: none"> • Dan Saatrup Nielsen, Senior AI Specialist, Alexandra Institute • Martin Carsten Nielsen, Co-Founder at Alvenir Natural Language Processing • Lars Maaløe, Co-Founder & CTO at Corti Adj. Assoc. Professor of Machine Learning <p>Completed</p> <p>A follow-up webinar is likely to be available late 2024 or early 2025, when the project has obtained more solid results. Lars is in the follow-group to the project. As of now there is a bias of females above 60 years of age. Visiting the local library, females are more open to interview and contributions to collection of base material of speech than their male counterparts.</p>
12.a	Practical use of sound in the healthcare system	<p>Focus on: ISOBEL project</p> <p>IDA together with Danish Sound Cluster held a physical event on January 15, 2024. Søren H. Nielsen and Kim Rishøj, Sound Focus, Martin Bo Møller and Søren Bech, Bang & Olufsen and Eva Wennerwald, Wavecare took part here. There were about 50 participants for the lecture, which lasted 2 hours.</p> <p>It still makes sense that we also do a webinar in the area, but where we also involve others. It was suggested to also include:</p> <ul style="list-style-type: none"> • Christian Sejer Pedersen, Mo Zhou, Peter Koch, Jan Østergaard, all AAU <p>After the meeting, Birger had contact with Søren Bech, who helped to establish contact with Martin Bo Møller, B&O from the project.</p> <p>Jeppe and Martin Bo Møller are looking to make a presentation for a webinar together.</p> <p>Timing: expected to be held around May, 2024.</p>
15	<p>Education in DK: "Hearing care professionals' (HCP)"</p> <p>With a focus on "Continuing education"</p>	<p>Better Hearing Aid Treatment in Denmark - New Developments and Use Scenarios</p> <p>Date: 24th April</p> <p>Time: 12.00 – 17.00</p> <p>Place: University of Southern Denmark (SDU)</p> <ul style="list-style-type: none"> • Welcome: Prof. Tobias Neher, SDU, DK • "New Danish requirements and guidelines for hearing aid treatment" (Gert Ravn, FORCE Technology, DK) • "Real-ear measurements for guiding HA treatment" (Prof. Kevin Munro, Manchester University, UK) • "Speech audiometry for guiding hearing aid treatment" (Prof. Inga Holube, Jade University, Oldenburg, DE) • "Questionnaires for guiding hearing aid treatment" (Assoc. Prof. Jonas Brännström, Lund University, SE) • "Panel discussion about added value, practical considerations, across-country perspective etc". (all participants) • Networking and departure <p>Audience:</p> <p>Practitioners, hearing care professional, people supporting the hearing care professionals (e.g. supplying equipment, facilities, etc.), general audience in the hearing aid industry that has a need to understand the new direction in public and private supported approaches in the field, etc.</p> <p>All seems taken care of. Any additional info</p> <p>The day for the event is "International Noise Awareness Day". May be we can combine that with the event.</p> <p>SDU will host a working Group meeting on "Healthcare & Welfare Sound Solutions" on April 2, 2024, 10:00 – 12:00</p>

#	Subject	Background
16	Self-test of the need for hearing aids, remote test of hearing disabled, etc.	<p>As a supplement to On-line services, AAU under the BEAR project is currently working on at to produce solutions so that a potential user of hearing aids can sit in their own living room and decide whether there is a need for a hearing aid or not. Among other things. PhD student at Dorte.</p> <p>Suggestions for contributions from:</p> <ul style="list-style-type: none"> • Palle Rye, Ph.D. student with Dorte at AAU, but is late • UAUD project at SDU, Jesper Hvass Schmidt, Teleaudiometry <p>WHO has, among other things, a self-test APP, "hearWHO", which can be downloaded to mobile phones. Its purpose is to achieve early identification of hearing loss with the aim of e.g. to be able to counter that exposed/predisposed persons are exposed to additional influences which intensify hearing loss. https://www.who.int/teams/noncommunicable-diseases/sensory-functions-disability-and-rehabilitation/hearwho</p> <p>Palle Rye's Ph.D. project is not yet nearing completion.</p> <p>The UAUD (Jesper Hvass Schmidt) may be able to contribute. Jeppe will coordinate with Jesper Hvass Schmidt and obtain an overview of how much the group is able to include in a webinar.</p> <p>It was proposed that we may also be able to include some of the hearing manufacturers and their in-house solution in an event.</p> <p>We will discuss the theme again at next meeting, where we hopefully have a clearer overview on the options available.</p>
18.a	Approval of products, e.g. CE marking of products.	<p>Proposed program:</p> <ol style="list-style-type: none"> 1. Søren Storm, Dansk Standard project management-oriented approach to CE approval 2. Kim Boll Jensen, Bolls "How can an SME meet CE requirements, a case example." 3. Jacob Steensen or colleague, FORCE Technologies "Approval of wireless interfaces in products" 4. Optional: Søren P. Petersen, ex FORCE Technologies 5. Panel discussion <p>Target group: SME companies. Proposal to also send out invitations through e.g. DTU's mentoring program (Deep Tech monitoring) to get many SME companies and start-ups talking.</p> <p>Still under development.</p>
18.c	Approval of products that require medical approval. New subject	<p>Medical approval of products is a challenge, not least for start-ups and SMEs. Approval to eg. FDA in the USA and European requirements, including DS/EN/ISO 13485, and where to start?</p> <p>Large companies in the area, not least the hearing aid companies, deal with the challenge as an integral part of their general quality organization. They have the experience of how to attack approval in the individual markets. For an SME, the challenge is often great, because they lack experience and do not have a quality organization that supports this.</p> <p>A webinar could focus on:</p> <ul style="list-style-type: none"> • Oticon's regulatory team is willing to contribute 30 - 60-minute submissions on the challenge. Thomas Krohn, Principal Compliance Specialist, tkro@demant.com • Can GN-Hearing and/or WSAudiology contribute? (Birger has send mails to WG members from the two companies, Jesper Bolt will check in his organization) • SME: Ausculto start-up, Aalborg, Oliver Damsgaard, or Samuel Emil Schmidt, Msc. PhD • Ernst-Ulrik Haxthausen, Adix, SME experience <p>Once a team has been set up, we plan to set up a planning meeting, where we can coordinate the focus of the individual contributors.</p>

#	Subject	Background
20	Access to data from the hearing care service	<p>Researchers' access to the many hearing data that exists in DK, but to which no one, or only a few today, has access, is interesting. Either because systems do not talk to each other, or because of a lack of policy in the area, i.e. who owns the data.</p> <p>The topic is political, and it would be appropriate to secure participants from the established political establishment, from the Regions and others.</p> <p>It could be a contribution from DSC to also give SME companies better access to results that they could use in their development of products and services.</p> <p>Discussion:</p> <p>The situation surrounding hearing data is complex. In the "Bear project" it became clear that the quality of hearing data from the various clinics is not at a level where it makes good sense to compare data. Now, new requirements for the quality of hearing data, see also point 15, Focus: "Quality Requirements". . However, no funds have really been allocated to the area yet by the Government.</p> <p>Challenges with data ownership have not been clarified, in addition there are requirements around GDPR, validity of data, etc. Danish legislation in the area is restrictive in an international context and makes it difficult to share data. There is also consideration that results must be unbiased, so that you can e.g. do not give trial participants access to their own previous answers in questionnaire surveys, as this will influence answers, etc.</p> <p>With regard to the interconnection of data, there is a development underway in e.g. the project "InHear", which runs at Aalborg University Hospital, and where Lene Dahl Siggaard, lene.dahl@m.dk , phone: 24 76 68 44, will defend her Ph.D. in 2024. in the area, Supervisors are:</p> <ul style="list-style-type: none"> • Morten Høgsbro, MD, Ph.d., M.Sc., senior physician, clinical lecturer • Henrik Jacobsen, MD, mMBA, chief physician • Dan Dupont Hougaard, MD, senior physician, clinical associate professor <p>To get an update on the status, the Danish Health Data Agency should be contacted, as they are behind "InHear".</p> <p>https://www.inhear.dk/</p> <p>https://sundhedsdatastyrelsen.dk/da/strategier-og-projekter/hoereomraadet/ny_model_digital_visitation/inhear</p> <p>Søren Jakobsen, sjb@sundhedsdata.dk , Phone: 3268 8143</p> <p>Jeppe has contacted Lene Dahl Siggaard to get an update on, whether she can contribute in a webinar and also if she needs assistance from Danish Sound Cluster in relation to dissemination of results from the "InHear" project. No feedback yet from Lene Dahl Siggaard.</p> <p>A discussion developed around the possibility of creating specific projects that could gain access to hearing data, for example the data that Rigshospitalet holds in the biological area. It was pointed out that the process will be very difficult. In part, a project must be very specific in order to obtain permission at all. In part, the GDPR rules require that all patients must give permission for the use of their personal data. If a patient later wishes to withdraw their permission for the use of personal data, it must be possible to withdraw such data from examinations at the time when the patient changes his mind. 'General data' in hearing care is hardly useful, as the database here is very weak. It does not contain detailed data, but only information about doctor visits, decisions, prescriptions, a hearing chart, etc.</p> <p>All in all, there are very complex issues surrounding hearing data, but it would be welcome if a model could be found so that at least researchers could have better access to such data.</p>

#	Subject	Background
21	Music in relation to dementia New subject	<p>Projects underway or recently completed under DSC focus on the use of music in dementia.</p> <p>There is great interest in the subject, although research in the area still seems weak. Dementia seems to be closely related to loss of hearing. Hearing aid companies claim this and are supported on such views by US clinical studies.</p> <p>Lars and Erik will ask around in their organizations if there are references to the topic that can be used, e.g. links to people in the USA that could be contacted to assist in a webinar.</p> <p>The topic can perhaps also be broadened to include general strengthening of brain processes and cognitive training through the use of music.</p> <p>Due to absence discussion on the topic was postponed to the next meeting.</p>

Any other Business

Erik Lund informed that he is changing job position in Oticon the architectural group and will no longer be member of the audiological hearing department that is responsible for appointing working group members to “Healthcare & Welfare Sound Solutions”. He will most likely retire from the working group, and another person will be nominated. Erik will inform us as soon as a change has been agreed.

Next Meeting

- **Friday March 15, 2024, 14:00-15:00**

Appendix 1: Attendees in the meeting on January 17, 2024

Dorte Hammershøj	AAU	Professor
Erik Lund	Oticon A/S	Manager, audio processingsteam i R&D
Jesper Bünsow Boldt	GN Hearing A/S	Sr. Manage Research
Lars Bramsløw	Eriksholm research Centre	Senior Scientist
Tobias Neher	SDU, Sundhedsvidenskabelig Fakultet, Klinisk Institut	Professor
Birger Schneider	CHAMAJ Consult	Director
Jeppe Lindegaard	Danish Sound Cluster	Program Manager

Appendix 2: List of potential themes

Addressed or proposed in previous meetings but for now put on list of potential topics. Waiting for the topics to be better matured – or the need better identified.

#	Subject	Background	Proposers
11	APP and software	Target group: young people with an interest in sound.	Birger Schneider
12.c	Music therapy	<p>Therapeutic approach to the use of music. Relationship between music therapist and client, the use of music.</p> <ol style="list-style-type: none"> 1. Professor Hanne Mette Ridder, AAU (music therapy, among other things in connection with dementia)? 2. Artists who use music in therapy as a kind of "music medicine", rather than actual therapy (where there is a relationship between therapist and client), e.g. Niels Eje and Inge Mulvad Eje (CD series "Musicure") <p>Kira will consider proposals for concretization.</p>	Dorthe Hammershøj Kira Vibe Jespersen

Appendix 3: Events proposed and developed by the Working Group

Topics that the Working Group has initiated, or indirectly helped to initiate.

#	Title	Comments	Event type	Date
8 & 9	The new Bluetooth LE Audio standard		Webinar	22 June 2021
1	Make listening safe		Webinar	6 October, 2021
10	Online-tjenester til høre-rehabilitering mm.		Webinar	18 January 2022
12.b	Noise and its Effect on our Health”		Webinar	7 April 2022
13	Music interventions in HealthCare	Based upon DSC project updating older ”White paper” in the area	Webinar	14 September 2022
7.b.	Speaker Separation		Webinar	23 November 2022
14	” Assessing Real-life User Experience to Improve Hearing Technology”		Webinar	31 January 2023
14	“Sensors, Methods and Tools for Ecological Momentary Assessment”		Webinar	9 February 2023
	”Hearing restauration”		Webinar	19 April 2023
	Hearing aid speech enhancement processing with ML and AI		Webinar	5 September 2023