

Summary: "Creative Sound Solutions" – Meeting #14

The working Group meeting #14 took place Monday, April 17, 2023, 14:00 – 15:00

Agenda:

1. Webinars:
 - a. Follow-up on proposals and ideas from meeting # 11 including additional comments and proposals.
 - b. Proposals for possible speakers
2. Physical events during 2022
 - a. Meetings? Workshops? Others?
3. Collaborative projects, update of proposals, indication of possible project consortia.
4. Other ideas for Danish Sound Cluster activities
5. A.O.B.

The in-person event, "Acoustics in Open Plan Offices" that took place at the "Royal Danish Academy" on March 23, 2023, and the webinar "Haptics & Bone Conduction", April 13, 2023, were assessed at the start of the meeting. The physical event on Acoustics in Open Plan offices saw a large number of on-site participants. The well-organized event had proven highly interesting and engaging. Eddy Bøgh Brixen had been the primary organizer of the event.

The webinar on "Haptics and Bone Conduction" saw a large number of registrations. Eventually about 30 people joined the event in addition to about 15 students from Stefania's group at AAU-CPH. Also, a highly interesting event.

Birger thanked Eddy and Pedro for their efforts in organizing the events.

Ad 1 Proposals for Webinars & In-Person Events

#	Subject	Background
5a	"Use of Immersive rooms"	<p>Timing: Mid 2023</p> <p>Focus: Use of Immersive rooms</p> <p>Background: Several R&D environments in music are currently building ambisonic sound facilities (full-sphere surround sound laboratory rooms). Approaches taken vary. The first event will be based upon early experiments and use. After ½-1 year we can follow up on progress made, and possibly include more players.</p> <p>Speakers (have been confirmed)</p> <ul style="list-style-type: none"> • Lars Tirsbæk, Sonic College • Bjørn Jacobsen, Cujo Sound • Jesper Andersen • Hans Peter Stubbe Teglbjærg <p>Date: Still needs to be defined.</p> <p>Status: Pedro is working on obtaining confirmation of a date for the event but hasn't received answers from all speakers. Current plan is to run the event before the summer holiday of 2023.</p>
5c	Mapping of current Danish status of multi-dimensional sound	Completed April 13, 2023.
8	"Acoustics in Open Plan Offices"	Conference: March 23, 2023, 12:30 – 18:00 Completed.
9	Use of sound in museums	<p>Focus: Use of sound in 'story telling' at museums.</p> <p>Timing: Webinar in H-2 of 2023. Sonic also plans a full day "theme day" later, an international conference, possibly beginning of 2024 (with Alcina Cortez, Portugal).</p> <p>Situation today: Sound in museums is used in many 'flavors' and with quite different approaches. Often the background and understanding for adopting a sound strategy is not well founded, sometimes just based on a concept "someone offers for sale". No real R&D basis seems available today. Results in implementation are of rather varying effects.</p> <p>Potential Program:</p> <ol style="list-style-type: none"> 1. Use of sound at the Viborg Museum, v. Birgitte Folmann 2. "Escape" ("Flugt" in Danish). 3. A technical review by an experienced advisor, Anders Jørgensen, Stouenborg ApS. <p>Ingeberg Okkels from https://lydvaerk.dk/ (office in Lydens Hus) would like to contribute. Shelley will coordinate with Lars and check what role Ingeberg Okkels could possibly play in the event.</p> <p>Date for the event Date is not yet defined. Must fit into other plans at Sonic College for their 2024-large conference. The webinar will also serve as a teaser for the SONIC College physical conference. Shelley and Pedro will coordinate the efforts.</p>

#	Subject	Background
11b	Podcast tools, approaches (Technology)	<p>Event type (under consideration):</p> <ul style="list-style-type: none"> Physical event, if we feel, we can bring enough people together. Targeted for June 2023 <p>Venue (in case of a physical event):</p> <ul style="list-style-type: none"> 'Lydens Hus', Gl. Kongevej, København <p>Focus:</p> <ol style="list-style-type: none"> Technology associated with podcasts. "Story telling" in podcasts. <p>Basically, two different webinars.</p> <p>The first one, "technology" is the easiest for us to organize, and it fits our traditional audience. It is about: a.) Costs of dubbing, b.) making the journalist's job easier, c.) why is audio quality always bad?, d.) look at tools available to help, etc. Some 'story telling' background could be useful in the beginning of a 'technology' focused event just to frame the concept: i.e. why is it important to have technology under control.</p> <p>The topic could be extended to include good binaural stories, how to make that immersive in different ways. DPA microphones are for example supporting the hardware technology for binaural microphones.</p> <p>The second theme, 'Story telling' may be taken on later. Here we could talk to people at DMJX-'Journalisthøjskolen' in Aarhus or SDU, Syddansk University.</p> <p>Audience</p> <ul style="list-style-type: none"> Solution providers for podcast generation (event 1) Experienced people in podcast production and knowledge of the difficulty in supporting a user segment that has ambitions for podcast production but limited background in the area (event 1). People with little background in sound engineering but aim at podcast production (event 2). <p>Aims:</p> <ul style="list-style-type: none"> "Democratize" podcast production in general. Address the "Storytelling" market. Obtain symbiosis between podcasters and audio people. <p>Status:</p> <p>Moving away from the original idea slightly, and towards the topic of "Which audio technologies and tools exist to help create better sounding podcasts?"</p> <p>Program:</p> <ul style="list-style-type: none"> Nomono (Trondheim, Norway) - sound recording kit and AI-driven DSP (recording hub, supporting 1st order ambisonic recording, encoded with head-related transfer function (HRTF)) Nick Dunkerley- about audio editing and how Hindenburg has created a community where everyone can learn more about how to create good content. Center for Podcasting - to speak about podcast hosts, platforms, tools, networks, facilities etc. (They work with Lydens Hus, Lake Radio, Podcast Pusher etc). What about the Podimo platform? <p>Possible people for discussion part:</p> <ul style="list-style-type: none"> Stacey Goers, Acast

#	Subject	Background
11c	Story telling in Podcasts (balanced on gender) New Theme, follow-up to 11b	<p>Focus: Follow -up event on Podcast tools (see 11b)</p> <p>Audience:</p> <ul style="list-style-type: none"> • People with little background in sound engineering but aims at podcast production, and where the story telling is the prime focus. <p>The audience for this theme is not our traditional audience of technically oriented people. Instead, here we need to address an audience of more novices in terms of technical background. To reach out to such an audience, it is mandatory that we identify organizations that can assist us in connecting to such audience, e.g. through linking up with such other organizations through their newsletters, web-info, etc. in relation to the specific topic.</p> <p>Contributors:</p> <ul style="list-style-type: none"> • Center for Podcasts (www.centerforpodcasting.dk) • SDU, Podcasts • Others? <p>We will discuss this theme in future meetings</p>
12b	Using game audio engine in other applications than gaming	<p>Discussion in the working group has revealed the opinion that there is a general trend in industry on use of 'game engines', but in no way unique in relation to a "sound" agenda. Consensus that using game engines dedicated to sound applications, including 'sound-scaping', may prove a potential for events in a sound-related context.</p> <p>Some observations:</p> <ul style="list-style-type: none"> • At Sonic college, they have taken an interest in Microsoft 'Project Acoustics', a 'wave acoustic engine' for interactive 3D experiences. • Hearing aid companies are known to have launched applications using 'Unity' in relation to hearing-aid applications/support. • Although the use of e.g. 'Unity' in VR applications is widespread, and also in relation to theater use, the use of 'game engine' technology still seems to be rare in relation to actual audio applications. • We have noted that there are new applications. For example, Søs Gunver Ryberg is working on using 'game engines' in an upcoming opera, which is seen as a new approach. <p>Time schedule: Not defined.</p> <p>Possible contributors:</p> <ul style="list-style-type: none"> • Nikolas Borrel-Jensen, DTU, currently involved in machine learning using such tools. <p>Rune proposes that we contact Yann Coppier, since Yan is involved in similar work and has contacts to a network of people in the area.</p> <p>Shelley to contact Yan Coppier to investigate if we can obtain progress through him</p>
17	Haptics and Bone Conduction	Completed: 13 April 2023
18	Use of sound by artists	<p>An event, where artists are talking about how they use sound, what tools they use for creation of sound, and what challenges they face in doing so.</p> <p>Speakers:</p> <ul style="list-style-type: none"> • Jonas Olesen, author of the book "Pionerer og outsiders" (on Danish electronic music) • Eliza Bozek, Independent artist, e.g. using voice cloning in her sound scapes. • Nanna-Karina Schleimann, uses her own voice in acoustic set designs/sound set designs. She also uses binaural technology for her performances. <p>Timing: 2023, H3, possibly September</p> <p>Eddy will take the lead in planning the event.</p>

#	Subject	Background
19	Audio description (“synstolkning” in Danish) New Theme	<p>Background: Audio description is a means to inform individuals who are blind or who have low vision about visual content essential for comprehension. A narrator (audio descriptor, AD) handles key visual elements of live theatre, television, movies, museums, and other media to enhance the enjoyment primarily by blind and visually impaired consumers. AD describes body language, expressions, and movements, making a program clear through sound.</p> <p>Previously the topic area has been a niche topic but is becoming mainstream in recent years (possibly supported by emerging US and EU legislation? - although not yet enforced).</p> <p>A parallel domain of use has for some years been available to assist blind people in use of websites, e.g. solutions by Danish company ‘SiteImprove’. (WCAG 2.1).</p> <p>Many modern types of equipment, e.g. coffee machines employ soft touch buttons rather than classic mechanical switches. This has made life for blind people more difficult. Audio Descriptors could be used to overcome challenges in such applications.</p> <p>Proposed speakers:</p> <ul style="list-style-type: none"> Stein Erik Skotkjerra, personally blind, has years of experience in how use of websites can be improved for blind people. He can provide insight on audio support. Has his own consultancy company in Aalborg and Copenhagen.
20	Inclusivity, a way to bridge diverse abilities New Theme	<p>A webinar aiming at using sound for inclusion of people with different handicaps.</p> <p>Possible speaker:</p> <ul style="list-style-type: none"> Doga Cavdir, Ph.D at AAU-CPH, https://www.dogacavdir.com
21	Immersive Audio New Theme	<p>Background: At present, a lot of words appear on immersive audio, but what are people actually doing in relation to immersive audio? What happens in Cinema sound: Rune Palving? People claim they are using ATMOS, but what are they really doing in relation to ATMOS apart from employing an ATMOS encoder? What is the future of immersive sound? Now we seem to have no rules, only ATMOS, and that could be seen as a lack of rules. If sound passes through the ATMOS encoder, it is ATMOS? In past use of surround sound, 5.1 we at least had rules on how to organize, evaluate sound scapes, etc. Status on current expectations on the future of immersive audio, which direction are we moving in terms of content? Many papers on immersive audio appear from Academia, and in many academia set-ups they often have very fine environments for immersive audio. However, what actually happens in productions, what facilities do people have once they leave universities and production schools?</p> <p>At next meeting, we will aim at getting more structure on the theme.</p>

Next meeting

Tuesday June 13th, 2023, 14:00 to 15:00

Appendix 1: Participants in the meeting

Birger Schneider	CHAMAJ Consult ApS	Director/owner
Eddy Bøgh Brixen	ebb-consult	Consultant, owner
Nick Dunkerley	Hindenburg Systems	Creative Director
Stefania Serafin	AAU-CPH	Professor
Pedro Costa	Danish Sound Cluster	Project manager
Shelley Livingstone	Danish Sound Cluster	Project manager
Torben Vilsgaard	Danish Sound Cluster	CEO

Appendix 2: List of potential Themes

Addressed or proposed in previous meetings. For the time being placed on the list of potential topics until topics have matured - or been better identified.

#	Subject	Background	Proposers
11a	<p>"Women in sound engineering"</p> <p>Electronic sound & music</p>	<p>Background for theme:</p> <p>General challenge that we have a poor gender balance in audio areas, i.e. too few females.</p> <p>Events will be inclusive/open to everyone but aim at a better balance in gender.</p>	<p>Stefania Serafin, Shelley Livingstone Stine Marie Hasse J Sofia Dahl (AAU) Lars Tirsbæk Eddy Bøgh Brixen</p>
13	<p>Dubbing challenges II</p>	<p>Efficient tools are available and the market for such tools develops fast in current years, supporting improvement of even poor-quality audio raw material.</p> <p>However, the entire scene of production is changing rapidly, and a webinar could focus on:</p> <ul style="list-style-type: none"> • The professional market of tools. (Entire work process is supported using new tools such as Adobe Premier, Avid Media Composer, Black Magic editing, etc.) • A more general tool market for less skilled users lacking deep audio engineering background. • Trends in support tools: Getting inputs from major suppliers of tools on what the trends are in tool technology and what can we expect for the coming years from the suppliers. 	<p>Lars Nørretranders Nick Dunkerley, Morten Brandstrup</p>
14	<p>Ethics in audio production</p>	<p>Ethics is becoming more and more important – also in relation to audio generation (risk of "deep fake" exists). Several cases of restricted sound exist. In general, if sound in relation to documentation is compromised through reconstruction, "hell breaks loose".</p> <p>Involve documentarists in radio/TV production.</p> <p>In a metaverse world, we might imagine a fully immersive, hyper-realistic virtual world that caters to all our senses.</p> <p>General agreement that challenges related to ethics in sound will become a more and more vital issue. Various types of AI support will allow creation of virtual sound, for example creation of voices of deceased people or other types of virtual sound creating. Ethical challenges follow naturally in the wake of many technological developments, and the use of AI in sound is no exception in this regard. It is crucial to start the debate early in this development, so that the area does not develop into a Wild West area.</p> <p>For example, the Danish association for Speakers and Readers, www.Danishvoices.dk are concerned with the situation on voice cloning.</p> <p>Possible contributors:</p> <ul style="list-style-type: none"> • Anders Kjærulff, Danish journalist, radio host, debater and lecturer, • Brit Ross Winthereik, DTU, professor in the Division for Responsible Innovation & Design, • Danish Voices, www.danishvoices.dk, • ETHOS lab, ITU, • Morten Holm, tonemeister. • Kyogu Lee, Professor, Principal Investigator, http://marg.snu.ac.kr/marg_people/ 	<p>Lars Nørretranders Lars Tirsbæk Nick Dunkerley Morten Brandstrup Rune Palving</p>

Appendix 3: Working Group Achievements: Events, proposed and developed by the working group

#	Title	Comments	Event type	Date
1	Creating sound for VR applications		Webinar	September 30, 2021
1	'Sound in virtual/augmented reality' (VR/AR)	Workshop at AAU-CPH	Workshop	February 24 2022
2	Dubbing challenges		Webinar	March 29, 2021
3	5G technology in Proaudio		Webinar	September 2, 2021
4	Audio AI – State of the art and perspectives in spoken document understanding		Webinar	June 16, 2021
5b	Bringing creativity into your engineering work		Webinar	April 26, 2022
6	Intelligent microphones		Webinar	February 23, 2022
7	Multichannel headphones		Webinar	January 11, 2022
10a	NGA ADM Immersive delivery		Webinar	February 8, 2022
10b	ADM Technology		Webinar	February 15, 2022
12.a	Audio in Games		Webinar	October 27, 2022
8	Acoustics in Open Plan Offices		In-person Event	March 23, 2023
17	Haptics and Bone Conduction		Webinar	April 13, 2023