Danish
Sound
Cluster

Summary: "Creative Sound Solutions" – Meeting #16

The working Group meeting #16 took place Wednesday, October 4, 2023, 10:00 – 11:00

Agenda:

1. Presentation of Jeppe Lindegaard, new Program Manager at Danish Sound Cluster
2. Webinars & Physical events during 2023:
    a. Follow-up on proposals and ideas from meeting # 12 including additional comments and proposals.
    b. Proposals for possible speakers
    c. New themes?
3. Collaborative projects, update of proposals, indication of possible project consortia.
4. Information from Danish Sound Cluster
5. A.O.B.

Ad 1: Presentation of Jeppe Lindegaard

Jeppe obtained a bachelor's degree from the Royal Academy of Music in Aarhus ("Det Jyske Musikkonservatorium"), followed by a master's degree at Aarhus University studying "Audio design" at "Information og Mediekendskab". Jeppe subsequently worked 2 years as a live TV engineer at TV3 Sport".

In 2015 Jeppe established his own company operating as a sound designer, music composer and sound consultant providing assistance to companies and others in relation to Sound Signatures, e.g. in conjunction with Podcasts, Apps, company presentation etc. He continued to have a strong interest in R&D in sound. The theme of "Creative Sound Solutions" has a special interest of Jeppe.

Now Jeppe has accepted the position as Program Manager at Danish Sound Cluster.

Jeppe lives in the Copenhagen area with his family.

Ad 1   Proposals for Webinars & In-Person Events

#	Subject	Background
5a	**"Creative Use of Immersive Rooms"**	**Completed on June 13, 2023**
9	Use of sound in museums	**Focus:** Use of sound in 'story telling' at museums. **Timing:** Jeppe is close to having the event ready for transmission. It will soon be put on the web for registration. **Shift in focus:** In the transfer from previous program managers at DSC to the new program manager, Jeppe, a communication flaw unfortunately has arisen. The names of potential candidates for the event that were transferred to Jeppe were different from those discussed in previous meetings. So, the **New Program** for the event that has now been set up to include: 1. Moesgaard Museum 2. Yoke, design studio 3. A Ph.D. from a museum (?) Given the misunderstanding in relations to previous work, DSC will contact Lars Tirsbæk at Sonic College to discuss the new situation and any possible remedy. It is important that we resolve the situation in a diligent manner to the best of interest for all parties. **Previous plan for the event:** 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**.
11b	"Podcasting – Technology and Potential"	**Completed on September 06, 2023** Consensus that the theme is highly important and should be followed up. A good area to recruit new people for sound in Denmark, and many podcasters lack essential knowledge about sound. AI will not be the rescue to many sound related challenges in podcasts. We take a discussion at next meeting on what follow up, we should aim at.

#	Subject	Background
12b	Using game audio engine in other applications than gaming	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. For an event we can focus on two separate directions: • Creative outcome: What are people creating in audio using e.g. Game engines? • Technical focus: What can various technical platforms offer? The DSC stronghold is usually related to technical focus since our audience is typically from technical circles. Jeppe has been in contact with three potential speakers, representing: • Frauenhofer • Audio Connectics • Microsoft A preliminary date for the webinar has been set to November 18, 2023. However, coordination between speakers is not yet in place, and that may delay the webinar broadcast. Currently GoogleDocs is used to ensure coordination between speakers. Jeppe will continue efforts to organize a webinar event. Rune claims that the promising use of game audio engines for other applications than gaming has proven too cumbersome and slow in use – at least for audio applications in the film industry. Long term, the expectations are that the technology could prove attractive but solutions in the market today do not as of yet meet such expectations.
18	Use of sound by artists	Eddy has worked on creating 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. **Potential speakers:** • 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. **Timing:** 2024, H1. **Challenge:** Clarification on whether DSC can pay for speakers in artistic focused events is still an open issue. Further discussion has been postponed to the next meeting when anchor person, Eddy, can be present. **A reference to artist fees:** https://dmf.dk/tariffer

#	Subject	Background
19	'Audio description', also referred to as 'visual description' or 'video description' ("synstolkning" in Danish) **New Theme**	**Background:** Audio description is a means to inform individuals who are blind or who have poor 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. 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). 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. A recent EU Directive imposes requirements related to audio descriptions (Directive (EU) 2019/882, European accessibility act ?). It applies broadly to public service channels, video network municipalities, etc., but is not yet fully implemented in national laws (to be enforced by 2025?) **Potential speakers:** • 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. • Gavin Kearney. York University, R&D in visual descriptions (Rune) • Brian reports the audio descriptions is an emerging challenge to many in the broadcasting communities (Brian will look for possible candidates). • Jenny Lay-Flurrie - Microsoft Chief Accessibility Officer ?
20	Inclusivity, a way to bridge diverse abilities.	A webinar aiming at using sound for inclusion of people with different handicaps. Possible speaker: • Doga Cavdir, Ph.D at AAU-CPH, We need to identify an event where this can fit in. May be related to pos. 19. Postponed.

#	Subject	Background
21	Immersive Audio **New Theme**	**Background**: At present, a lot of buzz words appear on immersive audio, however, many misunderstandings exist. Reports on people asked to produce ATMOS content in studies only supporting "old 5.1 techniques", etc. Two important dilemmas in relation to immersive audio: • How can we get creators of music and film to think "immersive" in their planning and development of sound strategies? • How are ATMOS and similar immersive audio solutions received at the end-user? More formats support immersive audio. Dolby's ATMOS gains strong ground, but other formats like SPACE MAPS, MPEG 4 (Frauenhofer) and others are also in use. Transfers between formats can be obtained using ADM. **Potential sources:** • Sonic College. At recent "Sonic Days", immersive audio was addressed (Lars Tirsbæk) • VEGA offers ATMOS support. A recent DSC event at VEGA offered access to use of ATMOS (Jeppe). • DR has equipped its studios 2, 3 and 4 with ATMOS. Currently most focus on classical music, also in relation to DR Concert Hall (Joakim will identify potential speakers at DR). • BBC R&D efforts in relation to ATMOS (Morten to provide contact details) • Sharin Foo, Rytmisk Musikkonservatorium & "Raveonettes" lead singer (Stine) **Comments from previous discussion** What are people doing in relation to immersive audio? • 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. Where are we now? 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 happens in productions, what facilities do people have once they leave universities and production schools? Discussion to be continued at next meeting

#	Subject	Background
22	AI created music and the threat to artistic generated music. **New Theme**	A topic is of high interest. Developments in the area are so fast at present that it is difficult to keep track of the status. The theme has already matured into a webinar event: • **AI in Music & Sound** 26th October 2023 How will the future music world look like – from the creator to the average consumer? The event will be held by: • **Anders Øland** Insight on a solution of solving the issue with a groundbreaking AI solution that will detect copyright violation in music created by AI. He will also give an introduction to what AI and deep learning actually is from a historic and computer scientific perspective. • **Andreas Hemmeth**: Hands-on presentation of the potential of some of the creative tools AI can offer – both with plugins within music software as well as music prompt services similar to ChatGPT and Midjourney. Webinar event is highly interesting. Working group members are encouraged to participate in the event.
23	Sound and Learning **New Theme**	Give children with reading difficulties better access to learning, so that they can submit their assignments in an audio format instead of a text format. Can "Folkeskolen" be strengthened in relation to sound and learning? First meeting of the initiative group in Struer on Friday 6 October, 2023. Is it a topic we should address in the context of a webinar? Nick will report back at the next working group meeting.

Next meeting

Tuesday December 05th, 2023,   14:00 to 15:00

Appendix 1: Participants in the meeting

Birger Schneider	CHAMAJ Consult ApS	Director/owner
Brian Slott Kristensen	Danmon Group Systems A/S	CEO
Joakim Moe Jensen	DR	Area manager, DR equipment & Studio OB Production
Morten Brandstrup	TV2 Denmark A/S	Head of Newstechnology
Nick Dunkerley	Hindenburg Systems ApS	Creative Director
Rune Palving	Den Danske Filmskole	Head of Tonemeister education
Stina Marie Hasse Jørgensen	ITU	PostDoc
Jeppe Lindegaard	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
11a	"Women in sound engineering" Electronic sound & music	**Background for theme:** General challenge that we have a poor gender balance in audio areas, i.e. too few females. Events will be inclusive/open to everyone but aim at a better balance in gender.
13	Dubbing challenges II	Efficient tools are available and the market for such tools develops fast in current years, supporting improvement of even poor-quality audio raw material. However, the entire scene of production is changing rapidly, and a webinar could focus on: • **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.
14	Ethics in audio production	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". Involve documentarists in radio/TV production. In a metaverse world, we might imagine a fully immersive, hyper-realistic virtual world that caters to all our senses. 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. For example, the Danish association for Speakers and Readers, www.Danishvoices.dk are concerned with the situation on voice cloning. **Possible contributors:** • Anders Kjærulff, Danish journalist, radio host, debater and lecturer, • Brit Ross Winthereik, DTU, professor in the Division for Responsible Innovation & Design, • Danish Voices, • ETHOS lab, ITU, • Morten Holm, tonemeister. • Kyogu Lee, Professor, Principal Investigator,

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
5a	Creative Use of Immersive Rooms		Webinar	June 13, 2023
11b	"Podcasting – Technology and Potential		Webinar	September 06, 2023