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The Online “Expert-Panel” – Review of a Novel Web-seminar Format

Abstract: Since 2021, the Fraunhofer Institutes ITEM and IIS and the German Society for Biomedical Engineering (VDE DGBMT) have launched a new online seminary. This sustainable format, referred to as “Expert Panel”, stimulates scientific interaction by introducing research topics and innovations within sixty minutes. The panel with three experts from different fields presents and discusses perspectives from science, clinical practice, and the industry. The first season of the “Expert Panel” offered comprehensive insights on the latest developments and innovations within “New Interventional Methods for Tomorrow’s Hearing”. Each topic was presented by a triad of experts from science, clinical practice, as well as the industry. The sessions comprised life-demonstration of planning tools for surgical interventions, the presentation of patient-individual intervention techniques and novel audiological systems for Cochlea Implant (CI) fitting and many more inspiring technologies. Each “Expert Panel” concluded with a moderated Q&A final. The sessions provided condensed updates and unique insights from applied research and had a lively attendance of up to more than 120 participants from the fields of research, clinic, and industry. This kind of format does not only drive interpersonal and interdisciplinary knowledge transfer – especially in times of home office – it also enables establishing a community of network partners, who meet at the “Expert Panel” on a regular basis. In addition, education credits have been offered to the medical community, thus creating additional benefit for the participants.

Keywords: Expert Panel, Interdisciplinary Online Seminar, Hearing Technologies

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1 Introduction

Have “web-seminars” become inflationary? Do we need yet another format with new content? Since January 2021, the two Fraunhofer Institutes ITEM and IIS, have launched a new type of online seminar in cooperation with the Fraunhofer Alliance “Ambient Assisted Living” AAL [1] and the German Society for Biomedical Engineering (VDE DGBMT) [2]. This format, referred to as “Expert Panel”, stimulates scientific interaction by introducing an exciting research topic within sixty minutes: (a) it provides insights into new research developments, i.e., innovative future products and their potential applications, (b) three experts from different fields present their individual experiences and perspectives from science, clinical practice and industry, thus creating (c) an “online innovation meeting” stimulating exchange and contact between experts and participants, establishing new contacts and ideas for projects and cooperation. The “Expert Panel” will show its impact through its sustainable, dynamic, and inspiring format beyond the actual COVID-19 pandemic. In its concept, a triad panel session combines benefit for education, innovation, and information.

2 Methods

In the spirit of communication and sustainability, the first season of the joint DGBMT / Fraunhofer “Expert Panel” focused on innovations in “New Interventional Methods for Tomorrow’s Hearing” presented by a triad of experts from science, clinics, and industry in each session.

The five events covered various topics along the clinical value chain – OR planning, interventional imaging, surgical simulation, novel hearing aids, and the patients view – namely:

- “Interactive Planning of Cochlea Implant (CI) Interventions on CT/ DVT Data” [3,4] with contributions from Fraunhofer IIS and the Leipzig University ENT department, see Figure 1,
- “Digital OR microscopy with measurement technology for CI-interventions” [5,6] with input from the

Fraunhofer HHI, the ENT department of the Charité and *Munich Surgical Imaging Corp*, see Figure 2,

- “Digital, Interactive Simulation of a Mastoidectomy with Haptic Visual Feedback” [7,8] with contributions from Fraunhofer IIS, the Erlangen University ENT department and *Szenaris Corp*, Bremen,
- “The Hearing Contact Lens® from Vibrosonic: functionality, performance and fitting” [9] with presentations from *Vibrosonic Corp*, Mannheim, the Tübingen University ENT clinics as well as *auric Hörsysteme GmbH*, and
- “Best hearing for every patient” [10-12] with inputs from the MHH, Hannover Medical University, ENT department, Hearing4all and *OtoJig GmbH*.

Figure 1: Screen capture from the first “Expert Panel” about the Interactive Planning of CI Interventions on CT/ DVT Data.

Figure 2: Screen capture from the second “Expert Panel” about an interoperative digital stereo OR-microscope with a live transmission from Munich.

Highlights of the “Expert Panels” were live demonstrations of planning tools for surgical interventions and intraoperative imaging as well as presentations of novel audiological systems for CI-fitting. To round up the inspiring format, a concise question & answer session followed the expert presentations.

3 Results

The “Expert Panels” inspired the auditorium with first-time presentations and unique insights from applied sciences. Created during the COVID-19 pandemic this sustainable communication format networks interdisciplinary expertise within Germany, establishes an easily accessible educational asset and promotes innovation. It has proven to be a well-accepted and desired format, combining excellence with efficient communication. In the first season, it not only helped stakeholders in the field of “hearing” from various fields of business bridge the COVID-19 pandemic but has also become a well-established and new forum to enter a prosperous network and keeping in touch with the latest developments. Whether it is about a niche research topic or the presentation of an innovative product idea, a live demonstration or the concluding, interactive Q&A discussion – the “Expert Panel” is always a great chance to brainstorm ideas and developments for improving the industry. With a strong attendance of up to 120 participants from research, clinics, and the industry the initial 45 minutes comprised three presentations and demonstrations and were followed by a vivid discussion. This timeslot proved to be the optimum length not only for a stimulating exchange, but also to build a brand, establish and grow your authority in the industry, and last, but not least, generate leads.

4 Conclusion

Our conclusions after five “Expert Panels” on the topic of “New Interventional Methods for Tomorrow's Hearing” at two-week intervals: Such a format not only improves and supports interpersonal and intersectoral interactions they also enable establishing a new community of interested parties who meet regularly for the “Expert Panels”, thus form a network of genuine value. In addition, since education credits are offered to the medical community, they benefit doubly from this event.

The “Expert-Panel” should provide a sustainable forum to network and to educate and inform on different advances in the field of biomedical engineering.

The second season of biweekly “Expert Panels” with a focus on “New technologies and processes for nursing and care” was conducted from May to July 2021. The positive resonance from our participants and the additional benefit created by this format, led us to planning the third season,

starting in fall of 2021 with a focus on “intelligent implants”.

We are convinced that the web-seminar format of the “Expert Panels”, with equal contributions from research, industry, and users, represents a novel means of communication that is independent of time and location and offers reliable added value on an easily accessible platform for years to come.

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