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WHO-ITU WORKSHOP ON: DEVELOPING STANDARDS FOR SAFE
LISTENING IN VIDEO GAMING AND ESPORT ACTIVITIES

JANUARY 30, 2024
MORNING

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     >> CHAIR: Good morning. I would like to welcome you
all for another safe listening workshop. This time, to
progress on the gaming and esports standards development.
We are in the ITU building, as you know, following up with
the previous event we had in September and we will have one
day and a half of interesting discussions, and without
further ado, I would like to start, to move on.
     First I would like to request Bilel Jamoussi with the
Deputy Director for the Study Group department to address
us, a few words. Please.
     >> BILEL JAMOUSSI: Thank you very much. Good morning.
Colleagues and friends, it is our pleasure to really
welcome you all today. Our upcoming standards for safe
listening and video gaming and esports will support around
3 billion gaming and esports enthusiasts around the world
with a well crafted standard trusted worldwide, we can help
countless people protect themselves from sound induced
hearing loss. We often say prevention is better than cure,
but for youth hearing loss, the leading hearing loss
prevention, it is our only option. ITU and WHO are raising
awareness of that, we're helping everyone to take care of

their hearing before it's too late. Our global standard will go a long way. It will raise awareness of the challenge and provide practical ways to overcome it.

And it will speak to everyone in a position to create positive change, especially users. Comprehensive standards are at the heart of our strategy, ITU and WHO together deliver an influential standard for the safe listening of music players in 2018, and the second edition was published in March of 2022, last year.

The standard describes practical ways to measure and control sound exposure. It also outlines valuable guidance for users, especially children. The users most vulnerable, to sound-induced hearing loss.

An associated toolkit supports the standards adoption, and we're now developing a conformance testing program to measure device's success in meeting the standard requirements.

We're now considering a wider variety of sound sources and types, and dynamics of sound, as we work to develop a safe listening standard for video gaming and esports.

We had expanded our scope, but our work maintains its emphasis on thorough consultations and practical solutions.

We are supported by experts from the I can industry and the medical field. With users also well represented. Our standards will be well informed and highly trusted as a result.

Reviewing our progress of this workshop, we will move one step closer to a new standard before the end of this year.

I thank you all very much for your contributions to this work.

With the diverse range of expertise powering the standards development, we're certainly on the right track to safer listening, worldwide. Thank you.

>> CHAIR: Thank you very much.

I would like to ask Shelly Chadha to address a few words from the WHO perspective, thank you.

>> SHELLY CHADHA: Thank you.

I would like to speak on behalf of our Director Dr. Nicholson who was unable to join us today here in person to say that hearing loss is a growing challenge, a public health challenge. Globally over 430 million people have hearing loss. Hearing loss that requires some form of rehabilitation, and this number is set to grow to over 700 million by the year 2050 given that currently less than 20% of those who are in need of care, those that could benefit from care actually have access to that care, the

services. There is no way that health systems can meet
this ever growing demand.

     As mentioned, prevention is not just better than cure,
prevention may very well be the only option we have,
especially when it comes to a leading cause of hearing
loss, that is noise-induced, or sound-induced hearing loss.

     Sound-induced hearing loss has been well established
in the realm of occupational health risk and we know that
many people across the world have faced this risk and
continue facing it, leading to a number of standards, a
number of programs, having been developed for occupational
settings. However, what was traditionally limited to the
workplace is no longer so. This risk is very much part of
our day-to-day lives as we lead our day-to-day existence of
going to work and entertainment and leisure activities,
which include an ever-growing number of sound sources. We
put ourselves at the risk of hearing loss.

     We cannot deny, however, that there are beneficial
effects to the sound we consume at lecher, the beneficial
effects of music, the row lacking effects of where is
leisure activities associated with sound are undoubted from
the WHO perspective, our effort is that people should
continue to enjoy these health benefits, but without
putting the hearing at risk while doing so.

     In this effort, we launched in 2015 the Make Listening
Safe initiative. An initiative that's been supported
greatly through its collaboration with the International
Telecommunication Union, and that many of you have been a
partner of right since its inception. We thank you for the
contributions that you have made so far and we really look
forward to cocreating this new standard with you and to
work towards a world where everybody can enjoy listening to
whatever it is that they wish to listen to.

     Without putting the hearing at risk.

     Thank you.

     >> CHAIR: Thank you, Shelly.

     I would like to move on with the agenda.

     In particular, we had a little bit of an introduction
in terms of the objectives here. But just to reinforce
that the idea of the series of workshops has been -- it is
a mechanism to collect the community input, in particular
we have a number of entities participating that are not
necessarily ITU members. It is a wide community and to
include those perspectives in preparing the standards, I
believe that Shelly had mentioned we want to have something
implemental, that makes sense in terms of the perfect
speculative of the players as well.

At the same time as protecting, hearing as much as possible.

So the objective here is to discuss the baseline text that we're considering for the standard later on in the line, it is to collect the inputs.

As you can see in the agenda on the screens, we have the next session starting with the activities and some updates from different stakeholders, and then starting after the coffee break, we'll have a detailed review of the references of the document, from the program webpage, you see a link to the document that you'll be discussing in case you have not accessed that yet.

It is important for you to take a look.

This is shaping a proposal from the -- in the ITU process, the documents, they're a formal, written input to the next group, as part of the Study Group work which will take place starting tomorrow afternoon for the next route.

The idea is that the input references discussed, shared with you guys to collect the collective wisdom and the directions that we're going.

We're going to be discussing that document, the different parts of the document starting with the definitions and the different pages, and then in the afternoon, another section of it. We go over with that until tomorrow morning's session. We will wrap up by lunchtime tomorrow as the workshop. Then we have the expert meeting of what you call Question 28, which is the eHealth, digital health question, our study experts group within Study Group 16 in the afternoon.

That is the program, I don't know if you have any questions or doubts. This is from -- available from the ITU website in case you have difficulty accessing that, let me know, I can show you the path, how to get to that. Basically going to the Study Group 16, there is a link to the workshop page.

Then with the work shop page program, it is this page that I am displaying.

All right.

With that, I don't know if you would like to say something further, shell Y in terms of the initial -- yes, Peter? Sorry, no, Carl.

>> We have submitted a document to the ITU meeting, but quite happy to discuss that document here I think in terms of efficiency, making sense to do that. It is just an offer or proposal anyway that we can.

>> CHAIR: Have you checked the agenda. Is there a point that you would suggest that we could take a look at

that?

>> As you're going Lou the WHO document, it is -- you could easily just go through this document as well.

It is quite a bit different from WHO document, it is quite reduced in terms of its proposal. Less is more as far as we were concerned.

I will leave that to you, where best to present that. Thank you.

>> SHELLY CHADHA: Following, in session 2, what we are proposing, it is to have a bit of a presentation to recap the discussions or the key takeaways from last meeting. Then what we plan to do from WHO's side, is to present a summary of the changes of the -- that we have proposed in the document.

Maybe that could be a good point also for Carl to present what Sony is proposing before going to you the documents.

>> CHAIR: Sounds good. Yes.

Let's do like that, take it -- let's say at the end of the session 2. Then we can insert there and Carl can -- sorry, too early in the morning for me -- to go over the points -- I suppose that your proposal is based more on the previous version that we have discussed in September, or did you take the version -- okay. That was my assumption. Yes.

We can also see those, within context of the changed proposed by WHO. We have a more global view from that starting point.   very good.

All right.

With that, I guess I suppose we could go over, starting with session 2 already.

I don't know if you want to stay or if you want -- okay. Sounds good. Okay. Thank you.

Thank you for coming, for the speech, Bilel.

We have the Rapporteur here for Question 28, but his float, it won't land until around the coffee break, Masahito, we don't have his intervention at this point.   .

However, just to mention that between September and now, we did not have any activities of the Question 28 itself.

This is probably the next -- we take on from where we start in September in terms of discussions for the draft. There we could say it was a zero draft, now it is 0.1 draft. We had some good feedback from the participants and I will not get into the detail of the change. Shelly will do that shortly after that. This is basically what we have done if terms of preparing for the meeting taking into

account the feedback that was received.

With that, maybe we could -- I don't have the detailed version, Shelly, with the names of the renters.

Would you have that to see the sequence of what's speaking? Thank you.

>> SHELLY CHADHA: So, yes, Masahito will give a report later, we'll have a bit of recap. Then we have an update from developers and then we have others giving us the update from the industry perspective, just to give us that information. Exist wondering, before we start, there is not a lot of people here, I don't know if it is worth -- I don't know how many are con affected but maybe a quick introduction.

>> CHAIR: A good idea. Yes. While Brian gets himself prepared, maybe we could have a quick round of introductions. Myself, I work for ITU, part of the secretariat and I manage the standardization work for multimedia standards and the digital health standards fall within that domain.

Maybe I could go around the table. Since you suggested it, go ahead.

>> Good morning, everyone. Karl brooks from Sony, based in the U.K. Thank you.

-- Carl.

>> I'm living in Geneva. My interest is because I spent long evenings in blindness and I see a logical link with the hearing. So I'm here more for learning rather than contributing.

>> CHAIR: Michael.

>> Yes, I'm miking. I'm here to support you in anyway that I possibly can. I'm very grateful for the opportunity and I have attended all of the meetings as far as I can. I just want you to know how impressed I am with what you have all achieved so far. Thank you.

>> CHAIR: Yes.

>> I'm Christy mill, a research scientist and audiology from META, I work in AR/VR.

>> Good morning, everybody, my name is Tatiana, I'm the lead spokesperson for the global video game coalition.

Thank you so much for having me.

>> Thank you for having me as well, video games Europe.

>> Good morning, aim Nicola, senior research associate in health communication at the University.

>> Good morning, I'm Teralina, a technical officer with WHO working with the hearing care program.

>> Good morning, everyone. I'm from Toyota's and

working with Simao, thank you very much.
    >> CHAIR: Thank you.
    We have Shelly. Shelly, you want to introduce
yourself, Brian?
    >> SHELLY CHADHA: Shelly Chadha, I'm the technical
lead for ear and hearing care at the WHO headquarters in
Geneva.
    >> I'm Brian Schmidt, a composer sign designer for the
video game industry, and I run a conference called games
sound con and trying to reset my ITU password.
    >> CHAIR: Thank you, Brian.
    You may want to email the file to me, and then I can
project it in the meantime.
    To let remote participants introduce themselves.
    We have remotely -- let me see. Mark, could you
introduce yourself?
    >> Thank you for allowing me to join, I'm mark
Lawrence, I represent G3ict and the European association of
hearing aid professionals and the past co-Chair of the Make
Listening Safe, I'm still active in this domain. Looking
forward to it.
    Thank you, Mark.
    >> Yes. Good morning. Dr. Molita Moore, Vice
President of the global esports federation and happy to be
attending virtually.
    Thank you.
    >> CHAIR: Thank you.
    Mr. Camara? Good morning, chuck maybe.
    >> Kardoud, acoustical engineer, I recently retired
which is part of the officer for (indiscernible) control.
    >> CHAIR: Thank you. Richard.
    >> Richard Glover for CTU of LimitEar, also a member
of the Sanalic00G Committee.
    >> CHAIR: Thank you, Richard.
    >> Good morning, Steven wheatly, chair of the Make
Listening Safe campaign U.K. and also from hearing angle
unlimited from the U.K. Delayed to be here with you this
morning.
    >> CHAIR: Thank you.
    >> We cannot hear you.
    I guess he's monitoring remotely.
    >> I'm an acoustic engineer at Sony, and looking for
health and safety and other information and I'm very
pleased to be here today.
    Thank you.
    >> CHAIR: Thank you.
    Peter.

>> Hey, everyone. I'm from WHO, working from Sydney, Australia, happy to be here and looking forward to the discussions.

>> CHAIR: Thank you, Peter.

Alexander, would you like to say hello? I suppose not. Alexander is with the ITU team. The support team division. I believe that these are the remote participants, did you -- did you send me the smile.

I did. I can just start talking to it.

>> A couple of things on developer outreach. At game sound Com this year, we had a roundtable on hearing health. In fact, we invited Shelly to our -- to partake in the opening sessions for the session, we had over 700 professional sound designers from all areas of the world, people that make video games.

In addition to Shelly providing some opening remark, which she took an Uber from downtown L.A. to speak for 10 minutes and took an Uber back down again. I really appreciated the effort that you made there, thank you.

We had a roundtable session which I'll go over a bit of the results in a minute.

We're scheduled for a presentation on hearing loss, video games at the game developers conference in March of this year. That is North America's largest meeting of game developer, almost 30,000 attendees go to that every year. There is a tuck specifically on hearing health and games that will be cross listed in the audio track and the accessibility track. I'm very excited about that.

At the game sound com roundtable, an informal kickoff meeting, we had around 20, 25 attendees from studios of all sorts of sizes from Zinga, Indy studio, the Mortal Combat series of games, people from universities there. There was a positive response to this topic. It was hearing health is not something that we have even thought about, except it perhaps as they work in their own studios, their oneM2M personal hearing health. Smaller studios said it is easier to follow what a bigger studio does, if theyvy we're doing things this way, it is easier for a smaller student yes to go to the management, yes, we need to do this too.

Some of the attendees were not quite sure, you know, how they -- how their particular genr of games, particularly the puzzle games, what sort of things that they might do, and they couldn't think of anything off the top of their head.

Again, I was very happy that they showed up and believed it was an important topic.

Mostly attendees interestingly enough had a personal

experience typically a friend, family member who had hearing loss that they are dealing with.

So -- in addition to that informal roundtable of game sound Con, we'll have a follow-up meeting at the game developer conference with another roundtable in addition to the hearing health panel.

I also reached out to some of the Council manufacturers and the larger game publishers, and a pretty bit of universal feedback was that they think that the right place for this is really the device. There are far fewer makers of games consoles, headphones than software developers. There are thousands of software developers. They, of course, brought up the challenge of not knowing the sound pressure of people's ears, when it goes out, the analogue out jack, they don't know what happens to the signal. They feel there is a bit of a limit as to what they may be able to do. They're afraid if the solution is too intrusive, false positives, that players will just disable it quickly. We want to make sure to make sure something like that doesn't happen. A French horn player, a friend of mine, with an apple watch, every time he sits down to practice, his watch would remind him that he's listening to very unsafe level because, of course, his hand is in the middle of the French horn with the apple watch when he's practicing.

Some of the challenges that they think we'll have in terms of whether or not there are software best practices is that some of the things that we may want to think about encouraging may actually be considered game a play elements.

In other words, key game play challenges, such as the skill of -- it takes skill and practice of listening to become a better player. So while we might want to, for example, allow some end user, some game player mixing elements, at the same time, we want to weigh off the fact that we don't want to will all of a sudden make that game no fun because they can simply eliminate the need for any skill or practice.

I think that's something interesting to weigh up.

Warnings pop-up during game play are intrusive. That's something we had talked about before.

They believe that a good mechanism to do that is a lot of the systems have sort of an overlay UI system. We call them toasts, because they pop-up. The game developers have kind of become accustomed to certain regions of the screen, on consoles where for example, the toasts may pop-up, that may be a good place if we have messaging.

Consoles have the ability to man Dane features. They're used extremely sparingly.

It is very difficult to have a set of rules that would apply to all times. That's a thing that they really shoot for, if they're going to have a mandate, we call them TCRs, TRCs, that they really have to be written in a very Broadway to apply to the titles. It is difficult to create rules that cover large swaths of titles.

One interesting approach that Microsoft has taken, it is the value Terry, encouraged features, and in fact, giving those titles some kind of higher visibility, Microsoft does this with some of the accessibility features where if certain sight or hearing impaired features are implemented in the game, those features can be tagged by the Microsoft store and filtered by and Microsoft can choose to give higher visibility to some titles with certain features. That's more of a carrat approach, encouraging features, developers to adopt features as opposed to sort of a stick approach. That's the more TCR approach.

Some other things that they brought up, it is players do tend to get annoyed by automatic volume leveling. So if it is too heavy handed. One thing I didn't consider, we have to be considerate of hard of hearing players, that perhaps by nature of their disability need to listen and game at higher levels. We all want them to feel leak we're telling them to turn down, when they're simply trying to, you know, play the game, and hear sort of anything at all.

Also recommendation, it may be a good idea to o handle esports in a separate document, particularly around the areas of -- you know, we're talking about live spore events, seemed a little place in the zero draft. Another concern is that if consoles feel penalized because they're under more strict rules than a PC game. PC is really the wild west. P cbc is a bit challenging.

That was a concern that was raised.

I have a picture here. I will share that later.

Game developers are definitely listening a lot on head peoples. In fact, the better game developers listen on lots of different types of headphones. I was talking with an audio Director of counter strike. She has this headphone tree where she just listens to her sound effects on all of these different kinds of headphones and her quote was they're wild in how much they viery in volume and EQ. That's very, very challenging.

Once it gets out to the analogue jack, they just don't know what it is.

And the sound that's perfectly acceptable in the majority of her headphones, she will find a pair of headphones where it is just really horribly annoying. That's an interesting challenge that we may have to deal with if we're talking about shaping the content of games.

What else is there? There are a couple of detailed comments I can leave in the slides, in the interest of time. There are some particular PC configurations that hitting those configurations may get us most of the -- a good percentage of the market.

It is very challenging because there is all sorts of things that go in the audio chain, some laptop, gaming laptop enhance software that enhance the audio even after on the windows gets through with it. Whether it is spatial sound systems or just generic enhancement systems, so it is a tough ecosystem, and a couple of platforms on the PC side that are probably the most analogous to something akin a console manufacture are the platforms of Steam and the unreal story. Steam is the largest distribution of games on windows and on -- the unreal store is coming after them. They're the closest things where you have certain things that a game has to adhere to. Again, it is pretty light handed. One interesting thing that also looked a little bit was we came across a study -- somebody's master these looking at the various levels, which is the output -- which is the perceived output level that games do and they had noticed in this particular paper that there are different levels that vary depending on the type of action that's going on, if you're in the middle of a battle that's a louder level than if you're exploring and the sound effects would be louder than the back ground music and ambiance, so on. I included a table that characterizes that.

The last thing, just talking about some of the devices, making sure we have them covered, like the quest devices. Steam deck, which is made by valve, the valve index, the VR headset, Apple vision pro of course hits the market next week. Of course, the big one it's, Xbox, PlayStation, Nintendo, PC, that's the result of the reachout to developers.

>> CHAIR: Any questions to Brian, clarifications? Assumptions?

>> Thank you for that great summary.

I have a question, you mentioned hard of hearing, gamers, but you don't really need to put up the volume, because they can connect Bluetooth their devices for rehabilitation, like cochlear implants and hearing aids, to the device that they're using to play, that's one thing.

The other thing, it is just the question. I don't know if
captioning is considered for all games, for deaf kids,
deaf -- sorry, deaf gamers. You also can complement
captioning with sound in that case.
     >> Thank you for the comments. Yes.
     Captioning is definitely something that certainly most
of the larger budget games do. It's generally in the
accessibility options, you have the ability to do that. As
well as additional features for the hard of hearing, one of
the more common ones, it is actually having visual elements
on the screen to help point out things that you would hear
if you had better hearing. We have kind of talked about
hearing health being a second cousin of accessibility, I
think your point is exactly spot on for that.
     >> CHAIR: Thank you. Please.
     Thank you so much for the very interesting for
professionals, I'm sure, but they're probably very useful.
I would like to highlight because the names of some of our
members have been mentioned, that those are probably the
personal opinions of the professionals and may not reflect
the official position of the companies.
     Thank you.
     >> CHAIR: That is a very good disclaimer. I probably
should have made at the beginning of my presentation.
Thank you.
     >> CHAIR: All right. Any questions on the remote? I
see Stephon has the hand raised. Please.
     You may or may not know that we have been running a
survey amongst gamers and esports players to try to
establish how they configure their technology when gaming
and playing esports.
     We have submitted a summary of that Google poll to
Peter, an organizer of this meeting, and Masahito as well.
If they were inclined do so, perhaps it may be the right
time useful to share it.
     In headlines, it shows -- it is not a huge survey,
about 170 or so respondents, but what it does show, it is a
very confused picture, the technology. It is not
straightforward, that somebody is using a game device and
let's say a pair of plug-in headphones. There are all kind
of subtleties and we need -- this is really supporting your
point, we feed to find ways of addressing, as many of those
as possible.
     We're happy, it is not -- this is on the basis of the
Make Listening Safe campaign U.K., we would be grateful if
the survey could be shared at some point so we get a much
more representative sample, and we're also very happy that

this group gets to have a look at the information that comes back from it.

I hope that's helpful.

Thank you for the downtown.

>> CHAIR: Thank you.

Anyone else with questions for Brian's presentation points? If not, then I would like to go to the video game industry feedback. I believe we'll have Tatiana making some remarks or updates.

>> Can I make them from here or would you like me --

>> CHAIR: You can go from there. Unless you want to display something?

>> No. It is just going to be oral comments.

I will start with two general observations and then I'll hand over to my colleague Sergi for more detailed observations.

First of all, we're very appreciative to contribute, of course, towards the process. I have one question, because, of course, neither video games Europe norGBCR members of the ITU Study Group, perhaps we can speak on the sidelines over a coffee as to how, what's most useful in terms of the input we provide, how we can streamline, providing the input, for example, for this workshop, we have hopefully received the draft but only on Friday so that left our members with little time to provide substantive input if we can maybe find ways, what's best for you in streamlining our input, that would be really very much appreciated.

I think that the second overarching comment I would like to make, it is one thing that we're paying particular attention to, it is that any standard of course, is technology neutral.

What I mean by saying this, it is that if at all possible, that any standard should not be gourd towards one particular company or one particular competitor that may or may not have developed already a technology or may or may not have had patented that particular technology. That's one thing we have started particularly looking into it, to ensure that any suggestion, any standard is technology neutral.

With that, I'll hand it over to my colleague.

>> CHAIR: Before the presentation, on the technology neutral, that's a principle of the standard, it is that while we might have technology in the eStandards, speaking in general, not for this particular context.

As long as it is -- as there is a reasonable and non-discriminatory agreement to the commitment to licensed

technology, it is patented and usually acceptable within the standards.

     We are not to promote a particular product or anything. That would be counter to the principle of the standards.

     Yes, your review, and the checking on that, it is always welcome. That is -- no? That is one of the objectives.

     Yes. Sorry. Yes. Please go ahead.

     >> Thank you for that clarification not much more on the side of the video game of the European video game industry. We have had little time to analyze the draft, which has suffered -- it is not the correct word, it shows an immense development from the zero draft. It shows a lot of what's been -- a lot of thought is put into it. Not sure how much of that thought has been impacted by the actual people that need to implement the standard, the video game industry.

     On very, very high-level comments, on the topic of the hardware features for the information, for the symmetry of the actual video game players, what they're receiving, we don't have any knowledge of such a technology existing at the moment, one that can do -- one that does the symmetry across the different platforms, hardware platforms, which it means that these technologies need to be developed, implemented from a scratch, it looks like a very long shot, that it can be -- that it is feasible, unless there is already that technology, we didn't know of its existence.

     On the side of the hardware -- sorry, of the software, here probably we would need input from our colleagues of the game developer associations. We mostly represent the bigger players in the market, but our first analysis is that it may be that safe listening mode by default may be difficult to implement for the smaller and I think European had kind of pointed out to this, for the smaller video game developers or the smaller -- or implementing the smaller projects, which may make the life of those smaller, medium enterprises very complicated.

     We would definitely have input after the workshop, on the new draft.

     We also still have some comments in the terminology, although I have to congratulate ITU and the WHO because it happens a lot in the use of technology. Now it is much more -- much clearer and closer to the industry usage.

     Thank you very much for the effort.

     Yeah, we only ask in order to be able to constructively contribute to the drafting is that we need

time to align, we need to align across different companies and across different territories with our North American colleagues, Australian, South Korean, et cetera.

And this requires unfortunately time, but as Tatiana had mentioned, there is a way to have a liaison or a discussion with the drafting group if side of the ITU. That would be helpful as well.   Thank you very much.

>> CHAIR: Thank you. Any questions for clarifications or comments on the intervention?

>> Thank you. We did intend to send you the draft much more in advance. Yeah. (Shelly Chadha) it just didn't -- we were not happy with it, weren't happy to send it out, even now we're not happy with it because we still spotted some errors yesterday.

Still, we needed to get it out.

Just to be clear also for future, what would be a reasonable timeframe so we have clear in our expectations that for your -- for you to get the feedback from your various member entities, what is a reasonable timeframe. Is it a week, ten days, a month? What would it be so we also plan --

>> It is not very much -- (chuckle) -- okay. So I would say two to three weeks, it is a good time with the scope, we need to receive, it we need to usually first, we do a first assessment, with our colleagues from the other trade associations, and the territories.

We sent a joint communication to our members.

Then we -- I mean, one week to get their feedback is usually enough, and then we receive the feedback and we need to put it on paper. Yeah. So it is not very mathematical, that I would say that two, three weeks, it is a good time.

Thank you.

>> CHAIR: We wanted to have this earlier, as you had said, but things were a bit complicated and delayed, and then we made it available Friday I think.

We have I think an opportunity here to in this day and a half go over in detail what's in there and to collect comments. The reasons that the drafts were changed so much, and thank you for saying that it improved, we appreciate that, it is because we took in the comments that were provided at the previous session and then tried to improve in line with those comments that were received. I think that that is the, you know an idea of the process in terms of the iterations, in terms of going towards something that is seen as reasonable by the different stakeholders.

As we say in ITU parliament, to make everybody equally unhappy.

So it is a small joke on this side.

So maybe if there are no further questions to Sergi's intervention, maybe we can go to Malita, to ask her to make her points.

Please?

>> Yes. Thank you again.

>> You know, it is very interesting, as we were talking about how many changes have been made since we started and what we do know, the on each agenda sports, gaming industry move so very quickly. I don't have any groundbreaking updates. However, one thing that is still quite challenging, for us, at least at the global esports federation in working with you all, it is -- you know, we talk about the gamer surveys, trying to get the information, I know someone who spoke earlier said they had about 170 responses from their particular survey for gamers. I'm still trying to solve how do we get these gamers to answer our survey, which, you know, we're sending them out in traditional format and traditional style. We have been thinking about different ways, especially how gamers consume content and how we can more effectively get kind of surveys out, not only for this, but also for other health information and maybe having to game-ify that a bit. That's an other used word I know, just wanting to take note. I know there are several surveys that about been asked to be distributed. Unfortunately, the responses, they have not been as great as we would hope. So just keeping that in mind as we're moving and looking to the future from an education awareness standpoint, from messaging, how we get this out in a format that gamers will consume and then be able to speaking about what we have been able to do, certainly from the global eSports federation side, it is with our partnership, we always cloud the standards for the venue and all of our events and so since our last workshop in September we have had our pan America esports championships in Chile. When we're there, we have information on safe listening campaign, we do an athlete development and performance workshop there that also puts the information in for safe listening.

All of our venues follow the guidelines that have been set out thus far. Although it seems small, because it is just one event, it still touches that many gamers, and touches that many people in the production, and we're at least helping to share this education and awareness.

We just had our global esports games in Saudi Arabia

in December where we had 1,000 at leets competing from over 100 countries and we distilled that down to 350 athletes that were able to attend and compete.

Again, we had another athlete development and workshop. So although these may not seem like large numbers, we are still -- we are grateful for the time that we get in front of the athletes to talk about the health and wellness, certainly the hearing health piece that comes along with, it always promoting the safe listening campaign.

I think as we look to the future, again, in how fast, how quickly the esports industry is growing, in the Asian games, in September of last year, the esports was an Olympic medal for the Asian games. We know that in October of last year, so just after our workshop, Tomas, the president of the Olympic Committee announced there will be an esports -- an Olympic esports games. So there was an Olympic esports week in the summer of last year, in Singapore, which was a success for the IOC. However, now with the new Olympic esports games, there will be different stakeholders now that will be involved, I think in the esports and gaming space Washington every certainly looking to see what that may shape into.

As we know now, esports will not be in the Paris 2024 Olympics, however, it will be in L.A., 2028. So we're creating the standard now, in 2023, and 2024, knowing it will shape a whole new generation and so just with the quickness of this industry, I think that what we're doing is very important.

Brian was saying things are changing quickly even from the headsets, things like that. You know, I just -- it helps to continue to champion this cause on behalf of the global sports federation and WHO and ITU is trying to work and see how to best disseminate this information and make sure that the people that have it, have a chance to consume it. I'm grateful to be here this morning and to continue to learn over the next two days.

Thank you.

>> CHAIR: Questions or comments? Yes?

>> Maybe just a comment. We're doing certainly regular surveys on player behavior.

For example, in Europe, every three months we have a survey that's answered between 12 to 15,000 gamers. We have not included questions about how they consume sound and we have a brief chat with Brian before the session started and we were wondering whether it may be worth having a survey as to how gamers consume sound, whether it

is overhead phones, on the PC, whether it is over
loudspeakers, but, of course, we're completely in your
hands as to whether that may be helpful on a global level,
we have also done surveys that have been answered by about
9, 10,000 video game players, focused on the wellbeing.
Again, we have not focused on safe listening and how
players consume sound. I would be happy if that was of
interest to have a follow-up discussion.
        >> That would be fantastic. Tatiana, we would love
that, simply because we're struggling to find a way to
really get the volume and even with the WHO, ITU, with the
surveys as well. We would love to have a side conversation
about that. Thank you.
        >> Thank you. Wonderful to hear you always. Thank
you for sharing that information because we have been
planning, as we did in the development of the previous
standard, where we got a lot of feedback from user groups
about the features that we have been proposing in the
global standard for safe listening devices and systems and
we would like to do the same for the current standard to
figure out how -- what users feel about the approaches and
the features that we're proposing how they have syped, et
cetera. Happy to have that conversation, as long as, of
course, the important thing is we be allowed to shape the
content of it and maybe Nicoli, you want to say something,
because Nicola Diviani and Sara Rubinelli, from the
University, they're our communication partners and they
have helped us in developing all of the health
communication materials and tools and surveys and
conducting them.
        If you want to say something.
        >> Yes. Thank you.
        I think it will be definitely very interesting to
gather more data or from different sources because we have
seen that it is not a demographic, that it is so easy to
reach in broad service. So if anyone has a direct access
to a group of gamers would be very important.
        Yes, I think that the focus would be in this case also
on the acceptability of the different features that are
suggested, and also in understanding the discussion with
Shelly Chadha last week, in understanding what could be
some factors that could help us to understand how to best
communicate them.
        To understand what features people appreciate, and
which not, also what could be some strategies to really
create some targeted and tailored communication for that.
        >> CHAIR: Thank you.

Any further comments or questions here? I think that
now would be kind of the point that we would be ready
to -- Shelly, I think you wanted to make more updates
before we get to the standard itself. Shelly?
        >> SHELLY CHADHA: Thanks.
        Before we go on to the actual standard, the changes,
so on, we thought we would give you a bit of a general
update from WHO.
        I would like -- I would like to request Peta online to
share the screen. If you could give him sharing rights so
that we just have a few slides.
        What I forgot earlier, thank you for the comments for
terminology and to thank you for the work in the outcome of
the work that's been done for WHO.
        Next slide.
        >> One of the first things that I wanted to share, it
is we presented last time, Lauren on behalf of WHO had
presented some data, which is now published in -- as peer
reviewed journal. This is -- this was already available on
WHO website along with other data presented during the June
meeting.
        It was as always with topics relating to safe
listening, what we found, it is that it is of the interest
of the general public and how to cover this well, the same
was the result in this case.
        Next slide.
        The other thing we want to share with you, it is that
we had in December a big meeting of the world hearing
forum.
        The world hearing forum, and it is something perhaps
not all of you are familiar with, it's a global alliance
which is hosted by WHO. It is a global alliance of those
organizations, entities, institutions that are gaged in the
field of ear and hearing care.
        This alliance has -- it works in five work streams.
        And the three thematic work streams here relate to
Make Listening Safe, change makers and the world hearing
date.
        They are different, these work streams, the work that
they do, it is a bit different from the technical work of
WHO. It is -- they are the advocacy, the awareness arm,
which works very closely with WHO's technical partners to
promote the work that we're doing here, to promote the
standards, to promote the awareness materials, and to
disseminate the materials that we have.
        Mark Lawrence, who earlier intro could you said
himself, he's recently been the chair of this work stream,

and now it has handed over that leadership actually to Lidia Best and others, but still very much as he said, engaged and involved in this.

This work stream, particularly has a number of actions, they do a lot of work to promote safe listening across various platforms and different countries, and Mr. Wheatly, whose smiling face we see here now, we did hear from him, it was a while back, it is one of the members of the work stream, and has been working to develop this information.

This is an example of the kind of work that the members of the work stream do.

Stephen wheatly launched a Make Listening Safe campaign, an independent campaign aligned with the WHO's messages but hosted by the national group and working with many, many national partners so raise awareness about the risk of hearing loss in the country.

Next.

And he also mentioned that for example in other work that some of the members do is to develop various activities such as this fact-finding survey.

Of course, there are many other members, and they do all of them, they're very active, some of them lead a school Ambassador's program, others have created school training programs, others work to advocate for the implementation of the standards by industry partners. One of our members, as a consequence of her advocacy, her country has now adopted a safe listening regulation.

So this is just to say that this is a whole group of individuals, many of whom you would have probably met for those who were there in the June meeting, at WHO, but who work hard to promote safe listening as a way to prevent hearing loss across the world.

We also had in October, thanks to Tatiana and Sergei, we were very happy to have people from different private sector entities to join us at WHO for a short meeting. It was not really a technical discussion, but more it was a discussion to understand each other's perspectives and it was an extremely helpful meeting, because at the end of it, we realized that what we want, it is all the same thing. We want people to have a good gaming experience, a good listening experience, but at the same time, industry doesn't want the products to somehow -- or rather wants the products to be saferer for us and of course, WHO, wants from public health perspective for that to be so as well.

It was a very fruitful meeting from our side simply from the perspective of really having a meeting of minds.

Thank you for arranging that.

Brian had mentioned Game Sound C om, I was delighted to be at, even for a very short time of the it was exciting and different from other conferences I go to. It was very nice to be there and to meet also people who are so passionate about gaming sound and at the same time motivated to take action, to reduce the risk of hearing loss.

That is -- do we have anything else? That's all in terms of an update.

I think in view of the fact that Masahito is not here and we're at 10:45, should we do this in the next session?

>> CHAIR: Yes. That's what I was going to suggest to do the review, then the document when we come back from the coffee break, that we also allow hopefully time for Masahito to arrive. If that's okay with the participants, we would have a coffee break.

Usually we take 30 minutes. We'll have a 15 and then resume. Is that okay? All right.

Thank you very much. For the remote, we resume in 15 minutes -- sorry, 0 minutes. 11:15 Geneva time. Thank you.

(Break).(Break).

>> CHAIR: Let's get back to business after the short coffee break. We do now have Masahito Kawamori with us, just if you can -- if you want to say hello to the meeting?

>> MASAHITO KAWAMORI: Yeah. Good morning. Good morning, everyone, also whatever time zone you're in, happy new year. It is my great pleasure to be here.

I'm very happy to see a growing interest in this activity. We have many participants online as well.

I'm looking forward to active discussion today and tomorrow.

Thank you.

>> CHAIR: All right. Thank you very much.

I have updated the program online according to our discussion this morning.

Now we go over with the brief overview of the changesor changes on the draft 0 by WHO and then after that, we have the document for comments on draft zero. Is that okay, Karl? That sequence? Okay. Shelly, if you want to display or share your desktop for the presentation, please go ahead.

>> SHELLY CHADHA: Thank you.

How we thought we would do it, first to give a little bit of a recap of the key takeaways from last meeting, and then to give a summary of the changes that you have seen in

the draft, the current draft.

So we met here in September, end of September, and some of the comments, or rather that we have tried to take on board, almost all of the comments that were made, that we could capture, and that had been captured in the document as well.

So one was about firstly the definitions which require modification to improve correlation and thank you again for mentioning that it aligns better, and we really welcome, again, to say that we very much welcome inputs into that, to keep refining them and make them more suitable and fit-for-purpose as we evolve the standard further.

Also there was this issue of trying to distinguish between the types of players, between not just casual and professional, but also those who are casual, regular, professionals, we had made that distinction as well.

There was a mention about the block diagram that needed to be updated, and this also, we have discussed with Brian works will be presenting it during the course of this meeting.

There was a concern about the video game warning to be -- that they can be a warning fatigued, easy accepted. The screens, they're valued real estate, here again we have not got rid of this feature, we will explain why as we come to it because what we did do in our research was try to look at other health warnings which came up and perhaps Peter will come in later during the course of this, to show you how much content is there at the start and adding safe listening warning to it, perhaps could be considered as part of this standard.

There was also a question about the safe listening features in the connectivity that were questioned in terms of the intrusiveness and that they would not apply to all games, because games have different acoustic, other characteristics, and also in terms of the prescriptiveness, as well of.

We have triple digits to address these in the draft in terms of trying to make sure that they do not disturb or destroy or somehow mitigate the presentness of the gaming experience.

Also -- pleasantness -- also making the distinctiveness based on the types of games and characteristics and we have moved significant sections to appendixes as examples that could be considered prescriptive.

There was also the concern about the safer listening mode and the headphone safety mode which should exist only

as a hardware feature. Again, some of these -- we
have -- I want to stress here the fact, the reason why
we're recapping these is because we did not lose or
overlook or ignore your comments. What we did, we
deliberated on them, went back, researched them, tried to
look at things, and then to see what should be addressed
and in which manner.

     This is to say that not that we could -- that we could
overlook or just decide summarily to reject these comments,
but to say that they have been carefully looked at,
considered, what we have tried to make the changes which
will be in line with these comments which is not to say
that we could change everything to suit exactly all of the
comments.

     There was also the concern about -- well, as Karl had
pointed out, that perhaps having the hardware, it is an
ideal solution, but we also hear of course concerns about
that and there is also -- there was also a concern about
how -- about how the volume reduction with occur if the
dosage as exceeded.

     In H.70, we have the automatic volume reduction, there
was also this concern about how this was -- how this would
be implemented in the context of gaming.

     In terms of the systems, we have tried to take a
loudness-based approach. Look at the potential features
for video games based on the loudness of the standard.
Loudness of the game. Last time there was a mention during
the course of the discussions, there was discussion about
using the LKFS, the loudness weighted scale or the LUFS,
the loudness units relative to full scale as an indicator
of the games loudness, and we have worked on that and tried
to give an option that is reasonable.

     Concern was raised on including esports in the context
of the standard which applies really to the gaming systems,
but not to the external environment.

     So recognizing that, that there are two components in
esports, if you look at it, there is the system that an
individual is playing in, and then there is the environment
which one is playing in, and that these are two completely
separate things, we have put now the esports requirement,
only their information, but not part of their standard but
we have come to that as we go through the summary of
changes. We have already mentioned some of them. But
going through them again, just in terms of -- let me stop
here and ask if there are any comments about the comments
from last time.

     Based on this, considering this, like I said, having

discussed everything with different people, looking at it
also from a research perspective, looking at the literature
related to that, looking at some of the games, what they
are doing, speaking also with colleagues at ITU, the
changes that we have made, firstly, or simply in terms of
format, so a lot of the imagery, the examples we had
included with the text is now moved to appendix, they don't
seem like we're trying to tell game developers or console
developers, manufacturers how to do this, but really only
what to do.

So the what, we focus on the what in the document, and
we have tried to put all the how in the appendix.

Also the safe listening features, the hardware
features, they now come first, then software features, and
as asked, there was background about video game play
software, and move all of the textual information, that is
the Wren, whether it is web-based, paper-based information
to its own section.

So the definitions have been changed, we have taken
note of the terminology changes which were mentioned, that
there is a different construct in respect to gaming and the
understanding is different, especially North America.

The terminology has been changed from gaming to game
play, gamer to game player, so on, so forth.

Hardware to video game play device, et cetera.

And as I mentioned, the type of gamers, they have been
classified.

In terms of the hardware features, we have made
certain changes to how the notifications should be made and
how the reduction can happen. We'll go through this with
detail going through the document.

Including taking note of the comment which was made
about do not disturbing mode and parental control as well.

We have included the headphone safety mode as a
hardware game play device feature.

Just to say you can stop me, even in the middle, but
we will be discussing all of these in detail as we go
through the document.

In terms of the -- again, continuing with the game
play hardware features, some features which were considered
as potentially unachievable, redoesn'tn't, overly
prescriptive, we have removed. Also that where
appropriate, these features, what we can do, with those we
have removed, what we have considered doing, putting them
as certain use case scenarios and try to see if we can have
a mention of them without really prescribing those.

An example of this, it is enhanced volume limiting,

that talked about the external sound sources, which is now being removed from the context of this standard.

In terms of the safe listening features for software, for video game play software, these have been maintained, by they have been modified. I want to give you here the rational for why they have been maintained. I know that Karl, as he will show in his document, he has completely -- that Sony proposes to completely remove them. The reason for this, it is, first, they're required. They're required because we consider it as key for safe listening compliance, for them to exist, a way for game developers to make the games safer for use. Especially the context of the fact that a lot of people play in PC environments, where it would not be possible always to have the hardware features implemented.

We think it is required. From a public health perspective.

Secondly, it is also requested -- it is required from a public health perspective, it is requested by gamers and players themselves who ask for these features in the discussions that we have had with them and also the surveys we have conducted with them. Patrick is not with us today because of a family issue. You all heard him repeatedly and you know he's a great proponent for these.

Thirdly, we believe it is possible despite what we have heard some of you say, we believe it is possible because these features are already being implemented in leading game titles.

It is required, it is requested, and it is possible. So this is an example of a game, a leading game where this kind of volume control is available. This is another example.

So when this is already being done, we are really at a loss to understand the hesitancy and we have to insist from a public health perspective that we need to have software features included in the perspective, in the scope of this standard.

So during the previous workshop, as mentioned, we spoke about LUFS, and we have suggested a way to kind of grade the requirements according to the loudness levels of the game.

A safer listening mode has been proposed, which correlates to the loudness level of the game. So depending on the loudness level, the features, the requirements, they may vary.

The headphone safety mode is also maintained because again people will not always be playing on consoles, so on,

that comply with this -- with the requirements of headphone safety mode, and, therefore, it is suggested that these are maintained, however, where the game title is intended to be placed on -- played on a system that offers such a feature, then it may not be required.

As I mentioned, specific safe listening features for esports context in, the context of the environment have been removed, we only mention that this should be in -- loss of words -- in kind of -- not really compliance, but in accordance with the WHO standard for safe listening venues and events, which is also being prepare as a technical paper by this study group.

So that is all from our side. Happy to answer any questions about that. Of course we would have much more time to go into each of these when we go through the document review.

Let's stop there.

I will just like to firstly acknowledge all of the work that's being done by my colleague Peter and also ask Peter if there is anything you would like to add to my summary.

>> Nothing particular to add at this time, I'm happy to listen to the questions and come back with answers if I'm able to (Peter Mulas) I did notice a question in the chat by Mr. Payne, I'm happy to answer that if you would like?

>> CHAIR: Please go ahead.

>> Peter Mulas: 100%, that could be a mindset of a gamer if given the potential to look at the volume controls and turn everything up. In the conversations we have had with competitive players, that was actually the opposite feedback, they want to have the controls to turn down the sounds that get in the way of wing the match. So for example, in a first person shooter, they're aiming to hear the footsteps, turning things down dialogue, turning down of the loud sound effects, turning down music become as strategy for that Tim lar type of game.

So yes, you're 100% correct, there may be players that want to have everything.

In the discussions we have had, in the research that we have undertaken, it is the opposite, especially for competitive game players looking for that edge.

>> CHAIR: Thank you, Peter.

Very good. Are there questions for clarification, any quick comments on Shelly's presentation, with the view that we'll get into detailed discussions during the next day and a half.

If there are not, then I would like to go to the presentation, if you want to display the desktop, just to share from the application?

>> And use this mic here?

>> CHAIR: Yes, please.

Can you see the screen? Okay. Great.

This is an input document to the study Group 16, it will happen tomorrow afternoon.

What I thought would be useful, if I ran through the document, and gained input from people during the workshop.

The proposed changes to the original draft that was issued at the previous ITU meeting, the previous work shop so it doesn't include any of the changes proposed in the latest draft from the WHO which was issued last week so just bare that in mind, please.

Thank you.

Okay. I have just changed -- sorry. Yeah.

Not in there. Yeah.

So first change --

>> CHAIR: One second. For those in the room, I suggest that you use the ear piece. You can be much more comfortable to hear what people say at the meeting.

It will fit in the ear lobe, Michael, if you -- yeah. Okay.

Automatically stand off, sow click the headset buttons to make it move up and down.

Sorry, please go ahead.

>> There are three main changes to the document. The removable of esports. The reason for that, is that we feel this would be a better fit for the other WHO, ITU document in safe listening in live venues and events.

As we have seen, the main impact on this, it would be from the three billion game users and I feel that in comparison, this is a small target audience for this document. And it seemed to be better place in the safe listening venues and events document.

So much of the first part, it is just removing everything do with the esports, and we have included as well as computers, laptop as well as gaming consoles and we have added -- you will see this in other parts of the document where we specifically call out the exposure to the sounds through headphones.

So just changing accordingly, removing of the esports, removing participants and spectators.

I didn't go through the definitions, I thought best to do that at the end when the draft is a bit more finalized.

This is more removable of esports.

Feel like we need to include the speaker, we thought
the main focus, it was through the headphones.

So we're on section 6 already. So I deleted this
paragraph because this is some of this could be contributed
to the fact that in this day and age, young people are
using their leisure time to high exposures of music using
personal audio systems or attending community events such
as concerts. Yeah. We do have already guidelines and
requirements in product safety standards that reduce
high-levels using personal audio systems. I wouldn't think
that's particularly relevant. The following sentence,
where it says no standards to set a limit, there are in the
product safety standards that are already available.
That's why I removed that.

I removed the word possibly here because I read the
whole sentence, personal audio device system compliance
standards would serve to minimize the risk for hearing
loss, it could -- yeah. Possibly be termed the safe
listening device. That's the reason why we're doing this
work, to ensure that this is not the case. Remove the word
possibly here.

These bits are just editorial, laptops here, removable
of esports events again.

Okay.

This is the same, editorial changes.

This is where I move on to the video gaming software.
We haven't removed all of the requirement, just a
high-level of what requirements of what we think is
practical. The main reason for removing most of the parts
is that we think it is actually practical to implement in
terms of having to test or comply with it, it is very
difficult to do that.

Perhaps it could be moved to an annex where under some
recommendations, I could see that working. Not as part of
the main document where manufacturers would have to meet
the requirements and be tested to them. I think that came
out of the workshop we had last year.

So certainly for now, I have just included some video
game software will provide a warning with audio risks
associated with gaming activities on initial learnings of
the game.

That is testable and implementable. This is a bit
awkward to read, video gaming software warning shall be
displayed to the gamer, with all audio output. We changed
this, it is not just video games that have the audio and
output. It is any media from a console or PC, we didn't
see the need to restrict that or focus on video games. It

really should be all audio output.

The changes here -- well -- yeah, just remove this safe listening warning I think. Teas the software, yes.

So the volume channel controls. We have removed -- it may be possible in a recommendation in an annex.

That leaves us to hardware, video gaming for hardware.

Not just gaming laptops, removing gaming, laptops.

Here 9.1, the gaming hardware device connected to headphones or ear phone, I thought that may be particularly important. It is not just gaming hardware, speaker, it is when they're connected to headphones or ePhones or ear phones, shall track the level and duration to sound as a percentage as it was before.

All of that remains the same.

This is very much in line with H..H.17, that's the other change to this document, it is to make it even more aligned with that.

This is the same.

Here, it may be easier -- keep the track changes. That's fine. Fine. That's the next change. I have copied what we had on 870, we thought it was more suitable to what we had these volume limit controls.

So if I read out, VGD shall provide the user with a suitable method for volume limiting when headphones or ear phones are detected. This refers to a feature which provides a message relative to a predetermined reference exposure, sound allowance, limit in accordance with section 9.1.A. That's the two modes of the selection you can do.

Volume limiting option message shall be automatically provided when the user reaches 100% of the weekly allowance. The user shall be given a message in accordance with section 9.4.1, which allows the option to continue to listen in cases that you do not wish the volume of the device to reduce. They're given the option to continue listening at this point.   this is similar to 8.70.

When the message is not acknowledged, it will reduce the volume of the device to achieve the sound level at the ERP, with defused filled correction, no grace in 80 or 75DBA according to the mode that's been selected.

So if possible, users should be given the option to customize this level, the level of which they would like their device to limit the volume according to their preference.

It is further recommended that this option, this came from the annex, just copied this into the main section, it is further recommended that this should be set as a default option and that the users should have the option to turn

this off if they do not wish to use this setting.

Okay.

Even so this looks like a track change, it is not.

It is just a copy of the section into it. That's the same.

This is slightly changed. The main part is the second sentence.

This is a text-based warning that you get if you come to the 100%. The device shall provide the use of the warnings, including the action for sound allowance use, time spent, the time allowance consumption at appropriate times as to not break the gaming immersion. That's important. We don't want users to be getting the warnings in the middle of the games. They soon would be fed off with that and just turn it off.

So for example, notifications should be provided when users reach 100% of the weekly allowance and so this is the same I think, time that the VGA is switched on on the exit screen, and between game sessions.

This section is pretty much the same apart from I have added this, the ky for message action, it will not interrupt the game session or break the immersive experience.

Then we kept this password protected volume control, so this is where the device or system will have the option where the maximum sound output cannot be exceeded and locked in the setting, possibly through using the password, and all of this is the same.

We moved all of this. Enhanced volume, limiting, possible use case scenarios.

We moved the safe listening features of game audio, accessories.

This is now included, as part of the main section because we have connected, it is connected to headphones and ear phones.

Didn't think this one was suitable, gaming audio accessories, fit with microphones. And it is with microphone, they'll pick up all sorts of background noise, that's going to impact the level of which you're listening to and you'll get warnings when it is not suitable, when it is not applicable.

Here, video with loudspeaker systems, we have taken that out, and really aligned it with h.870, and we kept the game audio game features designed for children, and that's important. The headphone output sensitive volume register, it is quite a target to have it be achieved. It is important because where manufactures don't know the

sensitivity levels and the characteristics that's been said
before, you're going to get much -- you'll be informed much
earlier than necessary of exceeding your 100%. It is fine
when you have got -- when you know the characteristics of
the headphones or when the console or PC knows that, but
without it, you will be triggering these notifications much
more frequently and when you don't know that.

     This is a -- this is an issue we have discussed many
times. So this is definitely an important factor. So is
how that information is transferred back to the console or
the PC.

     That was it.

     The rest of it, we also removed.

     This is again esports.

     So, yeah. Quite a lot to go through. The document
isn't publicly available, I didn't get authorization for
that. Obviously this will be same liable in the ITU
meeting. I have made it valuable for you to view here
during my presentation. I should be able to get
authorization to give it to you, to individuals if they
need it.

     Any questions? Yeah. Thank you.

     >> CHAIR: Thank you, Karl. I don't know if there are
any immediate questions for clarifications or comments? Of
course, it will be useful to have this, maybe some of the
can he points reflect as we go through the other documents
so that you can map. I tried to capture a few here,
general ones. But there are some specific things that
removed, some things were already removed in appendixes and
WHO proposal, but it is some good points there.

     Shelly?

     >> SHELLY CHADHA: Just a clarification. All audio
output should be restricted, not just the game audio. Can
you just pour my own educational purposes clarify what you
mean by the rest of that?

     >> We were thinking for example with the console, it
can play films, it is not just games. It is not just
restricted to the gaming content.

     >> SHELLY CHADHA: Does that include a chat function?

     >> No, doesn't seem reasonable to include that. No.
That could be the exception.

     >> SHELLY CHADHA: Okay. Thank you.

     >> Thank you. Thank you, thank you to Sony for making
the drone abuse, you know, to having the background
discussion and secondly, also that I think for the hardware
part we like, that in the parts that you haven't deleted,
it is aligned so well with H.870 with the language, with

the requirements, thank you for that.

I think that would be a very useful edition or substitution to the draft that we have submitted.

Thank you for that.

The other things which are from our perspective a bit -- a bit contention, not agreeable, we shall continue to discuss during the course of this day and the next.

>> Any further questions to Karl? If not, let me see if there is anything from the remote -- yes. Mark?

>> Mark Laurey: Yes. Thank you. A lot of the remark, they make a lot of sense, I'm very happy that you took the time to really evaluate it all.

I think as you may have heard from Shelly, it is harsh to remove anything software related, would it be a solution if we say that on the one hand, you have Part A looking at gaming devices? That you have Part B, looking at the gaming software or the game developed, because I could imagine that you want your game to be certified as a safe listening game, which is then fine. I understand that the mix between gaming devices and on the other hand, the games as such, maybe a complexity in compliance. But why would it be a problem that a game could be certified as being a safe listener game because of the software options that are available. We need to make sure that players have the option to play safe if they want to.

That's what you see coming out of most of the surveys and most of the people reacting.

Thank you, Mark. Karl may want to comment on that.

>> Yes. Yes. I think it is sort of a guidance, yeah, in an annex, where people could consider the ideal proposals. Our concern, it is how to actually test that these requirements would be a challenge I think.

And you're right.

In combining that with the console requirement, that would be very difficult. If you separate it out into an annex where it is recommendations, I'm not sure how you certify the software to it, as it stands.

Those requirements, they are quite detailed and I think would be up to -- one person may say that they have been fine, others, they're not, that's an aspect of -- that would need to be carefully considered when you are trying to comply with the standard. Thank you.

>> CHAIR: Thank you. Richard, you have a question?

>> First of all, I would will I can to also complement Karl and his colleagues for doing that work.

It is fantastic. Also I would like to support Karl in pushing hardware up. I think Shelly has done the same,

pushing hardware up in terms of priority, or the hierarchy if you like.

In the end, any software that's going to have to deliver that sound to those ears, via hardware, and unless you have control of that hardware, there is a bit of a problem, you don't really know where you are, know software but not where it is. Maybe that register would do, but the hardware, it is the final point of contact with the ear.

That's all, really. Fantastic.

>> CHAIR: Thank you.

Just double-checking if there are more requests.

It seems not. There was a comment from Andy online. That he was wondering if we should replace users with players in the lexicon. If there is any particular comments on that.

I don't know if Andrew would like to elaborate.

>> Thank you. I think we fall -- in the video game industry, which I'm part of, have been my whole life, we fall into this referring to people as users, when in fact they're playing games, whether competitively or on their own or in groups. We just have to check ourselves a lot to remember that we're making games for people that want to play them. So we talk about players rather than users if at all possible.

>> SHELLY CHADHA: I don't see any concern in this from our side. If there are from anybody else, happy to hear them. Otherwise, from WHO's side, we're happy to make the change if others agree.

>> As Karl had pointed out, not all hardware users are necessarily players.

It is note that important.

>> I doubt anyone would buy the esports or a PlayStation for the sake of watching movies only if they were not playing games.

>> Yes. Use the mic. Yes. I was joking in the past, it may have happened, but not any more.

>> Yeah.

>> I guess that in the end, it is a point, basically whether there are places where we say users but maybe it should be safe players in the sense that it may be more contextually appropriate of whom they're talking about. So just users are players, maybe they are passive watchers, something like that.

In some cases, they are active in the role of not just use, but really -- so it may make sense. Maybe we keep that in the advisory condition, where it makes sense, we can try to apply that. I think that's what Shelly had

suggested as well. Yes.

>> SHELLY CHADHA: I think if I may say, Karl's modification, what you made to that introductory paragraph to include the entire scope, and that is very much appreciated and I think that's very welcome.

>> CHAIR: Brian.

>> Just to speak to one comment, a challenge we'll have, you know, where the afternoon gets exciting I suppose, it is -- at some point we'll hit the place where the desire to have safe listening and protect the hearing of billions of people does meet the artistic aesthetic goals. One could imagine the rules being written in such a way that in order to meet the technical spec, a game has to allow the removable of everything but for footsteps. That fundamentally could change the nature of the game itself. So I think just as we're trying to work on these things, I think we want to keep in mind that the people that are making games, they consider themselves, you know, creating unique creative experiences. And that we want to keep that, but do it in a safe way and that's why I think that these one size rules that has to apply to all things, if you're going to say yes, it meets the spec can be very, very challenging. The notion, for example, of notifications, every game developer's nightmare, it is that -- it is those informally talking, it was in the middle of the Schindler his moment in the game, the -- they have been playing the game for 40 hours, they hit the lie next, and the notification comes up and drops the volume down and that's -- we want to make sure that game developers feel that's not going to happen -- again, I think it is something that will be very challenging to write a set of rules that will apply to all sorts of games and all circumstances without fundamentally changing some of the editorial.

>> I think that's very, very challenging, not the limit and things like that. Anyway, but it is a good point to keep us, I would say, mindful of -- about that aspect that is maybe more critical than -- more issues than what we had when we're talking about music players.

Here there are so many more elements.

I have a question in the back.

>> I totally agree with the last comment. We don't want to make people hate making listening safe but to embrace and like Make Listening Safe. As a mother of two teenagers, I have to say yeah, they won't be happy if they have interruptions for the game, very often,
whether -- this is a very important point to consider.

>> Right. I think again, one of the fundamental differences between the 870 spec and the devices it works on, it is that with narrow exceptions, the scenario of listening to music has become a secondary you activity almost. I listen to music while jogging, listen to music while vacuuming, listen to music while I'm engaged with another activity. I I think that given a game, a movie for that matter is a primary activity. The possibility of being more introsive is moch easier than with an activity that's mostly secondary. People againly don't mind if driving and the volume goes down a little bit on the music. If the focus is fully on a game play experience, a playing experience, that seems much more intrusive.

>> I want to ask the question about the headphone value, the register, has any more thought from WHO or ITU, on how that would be implemented, and how realistic that is? How it could be rolled out? Thank you.

>> I think that at this point, it is more of an idea than anything that we have taken practical steps to implement. The headphone registry, the concept that you had mentioned. Yes.

You wanted to say something?

>> SHELLY CHADHA: Yeah. And, of course, the point about the implementation and the user experience, player experience, very, very well accepted, and I hope you will see that reflected also in the new draft now.

But, of course, this is also to say that neither in H.70 or in this standard do we intend to kind of prescribe what exactly needs to be done in terms of, yes, requirements, but not in terms of implementation, that this is the point where you give the notification, this is the text of the notification that needs to come, the format of the notification, and we rarely, because we don't have, of course, in our own minds either that know how or the skills to know which is the right point, what is the right format, we can make certain examples based on what we learn from you and what we learn from our research. But we do not intend to say do it like this. The idea is that this is what we would -- with a we need to see in these -- in this device or in this title, but not to say that you should send the notification at this point in time.

Yes, you should have something at the initial loading, you should have some warning, whether that comes at the end of the great many, when the person take a break, when the person, you know, if it is a shooting game dies or something like that, at what point should that come in, and in what format would it be most useful and there I think

industry, those who create this content, to have a better grip also on the immersive experience aspect are the one who is need to figure out how this is to be implemented, and, of course, we hope in the future we would see many different iterations of those implementations coming up for us to earningsfy as well.

It is only to say that that is certainly not the intent. We thank you for the feedback from last workshop, because it helped us to understand that this was not okay and we have revised it accordingly. We're very, very willing to further keep refining and revising it to make sure that we do not -- and there are two reasons for this.

One, it is, of course, that we do not at any point want to make the games -- the gaming experience not pleasurable for the user, that's not the idea. The idea is to make it safer. But not less enjoyable. At the same time, what we also know is, that if we are intrusive, it will not have the intended health benefits that we wanted to have. People who draw -- given the profile, in terms of aim, so on, that we're dealing with, very often would be tempted to react in a -- with a reverse psychology mode, if you're going to tell me this in the middle of game, I will turn it up. That's what my kids can would do at least. I think it would the no serve our purpose very well, and it would not serve the creative or the player experience well either.

>> CHAIR: I'm at a loss exactly, if we close this part of the discussion at the moment, I will be at a loss exactly how to proceed. Now it is 12:15. If -- I don't know if you want to start looking at the details of the document from WHO? You want to squeeze those, all right. Okay. I was in doubt whether we could call for a lunch break already. Knowing that it is difficult to start before because we have the captioning booked for 2:30.

Maybe it would be better to go over a little bit more now than to resume. Okay. All right. Let's do that.

How would you like to proceed to display the document, and then we keep proceeding, and we're going to des play that in the -- yes. Let pea do that. Right. Right. So this document, it is available for free download from the main workshop page, the program page. I hope you guys saw it. That you were able to download? Yes? Karl? Were you able to locate it from the program page? There is a link there, where you can download the document, yes. So the diversion is deferring a little bit, because of taking notes during the discussion. Other than that, it is the same material that we'll be going over now.

We have that on the screen. Shelly, guide me as to how you want to, where you want to go, et cetera.

>> SHELLY CHADHA: Track changes?

>> There is no track changes in the document. It is a clean version.

There was a tracked version, Shelly, but that was impossible to read.

>> SHELLY CHADHA: I will open the track version for my own reference, just to be that you are I can walk you through the changes that we have made while you see a cheaper version on your screen. Of course, the -- firstly, the Table of Contents has changed accordingly. We have not I think at this point gone through that.

We did not make any changes to the scope, we take note of our -- of the work Sony is proposing, I think we can come book that at the end. In terms of esports context, we have not made any changes there. We will -- like I said, we take onboard what Sony has said. We can make those changes as we move ahead with this piece of work.

>> CHAIR: I suggest that we go section by section, and that if people want to say something, just to reasonable timeframe your hand, then we can take a pause, and discuss. All right.

>> SHELLY CHADHA: Yes.

>> CHAIR: Yes. I will just make a change on the display computer over there. I don't know if there are any comments on the introduction part.

If not, then we'll go to the scope.

>> SHELLY CHADHA: Maybe only to say that in terms of the keywords, they remain the same, the only change we have made is to a proposed video game play, included in this, as for the feedback last time, and in the introduction, the only changes that we have made as compared to last time, it is to change the word, replace the word gaming with the video game play, and some minor editorial changes. But that was all.

Again, as I mentioned we have not changed the scope, but included the same. However, to repeat myself, we take note of what Sony has said about the context of the wider con be tect, we can look at that, and we can make the required change as we go alodge. I don't know if that's a note you would like to make on this, or we can simply take it from Karl's submission.

Scope. Karl requested removing esports from the context.

>> Yes. Sorry, one question, are you going to discuss the scope now or do that later?

>> SHELLY CHADHA: Please, all discussions now. Later means when we do a new draft for this, we can make the change based on what Karl had --

>> Okay. So I can only -- because we received the -- we have not been able to discuss with the membership, okay, and only high-level comment, we don't have right now, the position on the topic of including -- excluding the esports, but as I already did, just to highlight, to support what Karl had mentioned about the fraction that esports means, really a tiny fraction compared to the rest of the mark.

>> SHELLY CHADHA: Okay.

>> Yes. Yes.

>> SHELLY CHADHA: Yes. Thank you.

Again, I think I already said this in the earlier part, but to say that when we're talking about esports we're talking about the device or the system that the gamer is playing on. We're talking about the wader environment in which the person is playing, where there is background noise, there is also the participants who are coming there and there is a lot of sound coming from the gaming, but also there is music playing, the sound of people, et cetera, et cetera.

It is an overall loud environment.

What we would like to do in this case, and what you will see later in this draft, we exclude all of the external, the environmental part, that's not really related to the hardware or the software that the player is playing on, whether he's a professional player or a casual gamer, obviously, not coming here, but what we are really referring to, what we would still like to include, within the scope of this, it is the hardware, the software, that at player is using, so irrespective of whether that software is intended to be used by someone at home, someone in an esports arena, that software, and the hardware, should still offer certain safe listening features, but true this technical recommendation and standard, we don't want to make recommendations about the external environment. What we only want to say in this document for references, it is that this venue should be informed and as far as possible, they should try to comply with the WHO global standard for safe listening events and very news, but it is not within the scope of this particular document to make recommendations regarding the environment.

>> CHAIR: No. I'm -- we're -- we would be totally aligned. I think you already mentioned in June that we consider the events and venues, the standard to be

universal, and for the use -- I think it is confuse, it may be confusing to use esports, which the industry -- for the industry, for the way that for example the European Union government has been using also the concept, it means literally only competitions, whether they are amateur or professional, does not matter, but it means only competitions. It we're talking about the use -- if we're -- talking about the people that participate in the circumstances, they're usersish video game players, there is mo is difference. Maybe a difference in the intensity, but it is not -- esports it may be here introducing a confusion in the scope of the standard.

>> SHELLY CHADHA: Let me ask a question which will be a reflection on my ignorance on some of these aspects. I continue to learn something every day of my life. That is really my life goal, to keep on length. Thank you for educating.

The software, the hardware, that's used in esports. The one which the player is playing on, is that the same as what you would be using at home, let's say, or is it going to be exclusively created for esports, not for casual gaming.

>> The hardware that people may use in an esports competition, on the game device side, it is exactly the same that one, of courser, maybe the PC, it is a high-end PC, but some high-end PC that a user can have in their homes as well.

On the topic of the headphones, it will be exactly the same, of course, there are some headphones that try to cater to the high end user but it may be a user that uses -- that they may be used in the context of an esports competition or may be used by people at home, there is also a lot of -- people that want to use the same setup, the same hardware that very elite, professional players are use, they may be using it at home.

I would say that it is exactly the same. There might be some differences, for example, on the topic of insolation of sound, very specific of those arena type competitions, and there we're talking about segments that are extremely small compared to -- yeah. The hardware, the software, it is basically the same in general terms.

>> SHELLY CHADHA: Exactly. It is the same, and therefore the same requirements would apply. Once again, a game, or a hardware, it is compliant, the devices are compliant with the standards, then whether it is used in a casual gaming rats fear or esports, it doesn't matter. And that is our rational o actually for maintaining the term

esports here because ultimately the same device, it is
being used in a casual, more professional environment, and
is only to say, again, and maybe we pray with words a bit
to make that clearer so that it is not -- it is only
applying to software and hardware which is used for game
play and also used, and maybe add a line there to add,
again, it is only to say that this part, it is also
included.

　　　　>> Game play includes everything. I mean, people do
not play esports. People play video games. They
participate in competitions, and that is possible. That's
the -- here it comes the confusion, what I think that
introducing the concept of esports may for some people
think that we are somehow also row posing those features
and recommendations for the competitions themselves.
Esports means for the industry, I said this is for example
as well, at present, in the prone union parliament, a
solution on esports and video games on December of 2022,
esports is the competitions, not the product.

　　　　>> CHAIR: Just to note, we did have feedback in
previous workshops of certain differences. For example,
that players only have access to the hardware, they are
using standard hardware that's providing the application,
they're not using their own hardware. (Captioning will end
in 5 minutes) just to report what we heard, so they would
have let's say a difficulty with the settings, the settings
are the ones provided by the -- no. By the venue provider.

　　　　So they may not have an adjustment of levels,
different aspects that they may be outside of their
control. That was one point.   the other, you mentioned,
the sound isolation, so which should be a concern -- you
know, use from what you have at home, for example, because
you done want to cheating and aspects like that or
distractions. There are some certain environmental
situations that are, let's say some -- that are just by
specific recommendations, in terms of the. Occasion, the
context of the competitions themselves, in addition to
things that would be, let's say, a high end hardware that
anyone could have at the home. I want to be mindful of
that. Also, acknowledging what you're saying, that there
is -- this may be a small percentage of the cases, so, no,
maybe it is not -- no -- a high public health risk of the
esports competitions themselves, in that context.

　　　　So is that an area that would need to be prescribed?
Should we segment those particular risks that are specific
to competitions that could be segment, recognizing the
smaller percentage? I think these are aspects that we

could -- yeah, I'll give you the floor, don't worry. Don't get too anxious.

About that and this context. We have to take all of these issue, separate that there is a significance and then the specificities and the recommendations according to that level and maybe be mindful as we write it, okay, this is something that people might be using esports, but also applicable to general public, high-end public, and there you may be able to cover that more carefully or there is a segment into another part of the specification or not cover at all. I think that these -- they're useful considerations to take or keep in mind.

>> I think a massive, massive let's say disconnect between what esports means and -- so, 99% or more of esports competitions are online. They are not in person. So people, girls and boys and men and women participate from their own houses.

That's quite important to understand, that the amount of people that participate in live events is a few hundred, we're not talking about not even 10s of thousands, we're talking about every year, a few hundreds of you on the low end of the thousands. 99% or another of the competitions were held online.

We understand that.

>> CHAIR: Yes. Michael.

>> So basically, we're acing, it is a very small portion of the world's population, but could lose their hearing would damage their hearing so, why should we include them the majority, that doesn't seem right to me. If it is a mall number, we're trying to keep them separate from the rest of the population, it just doesn't make any sense, what are the disadvantages offing esports? I can't quite understand it.

(End of captioning time).