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>> EMILY (Live CART Captioner): Standing by.

>> Welcome back, everybody. We'll start with where we left off before lunch. So we will start with the -- we will restart our peer user of the standard, of the draft standard. So this is where we were. Let me -- wait. Captions.

[PAUSE]

>> Just a moment.

[PAUSE]

>> Okay.

[PAUSE]

>> Can you see my screen?

[PAUSE]

>> Yes.

>> Great.

So we'll restart now with the -- with 6.3, which is video game play software, titles. This is still in the -- we're still in the section with which is giving the background. We haven't yet reached the recommendations about the features. So this is background 6.3 talking about the video game play

software.

Video game play software in the context of digital entertainment refers to computer programs or applications specifically crafted to facilitate interactive engagement with video game play content.

This software is intricately designed to enhance user experiences through interactive elements and is typically designed to include both visual and audio content to create a sense of immersion.

Key features of video game play software include: Interactive engagement, visual presentation, user input devices, audio component, and adjustable settings.

Interactive engagement includes -- well, refers to game play software enables users to actively participant in video gaming experiences by providing a platform for user input -- user input and interaction. This can involve controlling characters, making decisions, and influencing the virtual environment.

Please stop me either by a show of hands on this --well, on the Zoom panel or in the room, wherever you would like me to stop and to give input.

Visual presentation using display screens for visual presentation game play software delivers graphics and dynamic visuals that contribute to the emotive nature of video games.

User input devices: Game play software is compatible with various video game play peripherals, including controllers, keyboards, and motion-sensitive devices. These peripherals serve as interfaces, allowing users to control and navigate the virtual world created by the software.

Audio component: To enrich the gaming experience, game play software incorporates audio components that deliver sound effects, music, and other auditory cues. This audio component, also referred to as the sound track, is typically designed to be reproduced by speakers or ear level transducers such as headphones, earphones, or in-ear monitors.

>> Sorry, to go back to input devices, might we want to include microphones as an input device? Which is often used for more than just chat. For example, voice commands or singing if it's like a karaoke-type game.

[PAUSE]

>> Thank you, Brian.

So moving on to adjustable settings providing users with adjustable settings for visual and auditory output, game play software allows individuals to customize their gaming experience based on personal preferences. This adaptability enhances accessibility and accommodates diverse user preferences.

Just going to change gaming to game play. But

beyond that any comments till now on this section? [PAUSE]

>> All right.

Examples of platforms hosting video game play software include video game consoles, PCs, handheld video game play devices, and mobile devices with gaming capabilities. Additionally, video game play software can extend to wearable gaming accessories. I'm going to change that again to game play to be aligned with our terminology. Wearable game play accessories featuring integrated displays and interaction mechanisms, as well as devices equipped with virtual realty or augmented realty augmented functionalities.

The provisions outlined do not apply to: Game play software, specifically developed for the purpose of auditory diagnosis or rehabilitation. And game play software designed with no sound track at all.

[PAUSE]

>> Any comment thus far on 6.3?
[PAUSE]

>> And we move on to the damage risk criteria, which is Clause 17. And this it should be noted is taken from H.870. So there is pretty much not new text here.

Except changing devices for video gaming devices and so on.

Would you like us to read through this entire section or not?

Okay. Anybody who objects to moving beyond 7.1 at least? Because like I said, it's an exact copy paste from H.870 except to change personal audio devices to video gaming devices and likewise 7.2 as well is taken from H.870 only to match the terminology.

Would you like us to read through this or not? Okay.

We'll move on.

All right. Then we come to $\ensuremath{\text{--}}$ so that was seven was quick, which is good.

We come to Clause eight, which includes the safe listening features for video game play devices. And these features are again very much aligned with the recommendations which have been made in H.870. But let's read through it.

Video game play devices include but are not limited to video game consoles, personal computers, handheld game play devices, mobile devices, virtual realty, augmented realty devices and includes the operating systems which may be installed on these devices for it to operate.

Among the various components integral to the video game experience, VGDs stand out as a pivotal factor that can directly influence the resulting sound pressure level experienced by game players. This influence becomes

particularly pronounced in scenarios where the entire video game play setup is sourced from a single vendor or manufacturer where all operating equipment values will be known and calculate sound dosage can be more accurately recorded.

The following clause outlines features required in order for a video game device to become compliant with this standard.

 $8.1~{\rm refers}$ to Dosimetry. Again, almost a direct copy paste of -- from H.870, but I see that Mark has his hand raises.

Mark?

- >> To be consistent I think it should not say video game device but video play device.
 - >> Game play.
 - >> Game play device.
 - >> Yes.
 - So where --
 - >> Just before dosimetry.
 - >> Yes.
- >> I think there's a simpler way. It should be VGD. I've already made the change. So it will upload in a second Julie.
 - >> Did you want to say anything else.
 - >> No, that's it. Just VGD. I caught it as well.
 - >> Okay. Good.

All right.

So as mentioned, 8.1 is again lifted from H.870 and it refers to so that a VGD connected to headphones or earphones shall track the level and duration of the user's exposure to sound as a percentage used of a reference exposure, also known as users sound allowance. The user shall have the option to choose one of two modes that determine the total sound dose he or she can safely consume, which are mode one for adults, 8 decibels for 40 hours a week, and mode two, 75 decibels for 40 hours a week. Where feasible, the calculation should be made —should be calculated. So should be made across multiple devices used by the same individual. For example, personal audio systems, VGDs, and others. It is ideal to provide a single estimate to the individual.

Peter, you have your hand raised, is this an old hand or do you want to make an intervention?

- >> Sorry, old hand.
- >> Yeah, no worries.

>>

Anyone else? Thus far? Okay.

Note where feasible a VGD should also be able to calculate sound dosage for both ear level, audio or rather now close fitting peripheral that is headphones, earphones, and in-ear monitors and free field adios

devices including location based entertainment. The detail of such is for future study.

All right. Appendix 8.2 for implementation on dosimetry which again is lifted from H.870.

Then dosimetry user interface. Again, almost word to word copy from H.870 that VGD shall provide dosimetry information to the user in a clear, easily accessible and user friendly user interface. User interface features shall include at the minimum rolling seven-day recorded information on sound allowance use, a suitable indication of whether activity is safe or okay or unsafe or not okay. Where possible this should be calculated across multiple devices used by the same individual. Where such harmonization is not possible, users must be informed that listening over multiple devices can reduce the accuracy of the estimate presented and that the user should exercise caution and keep volumes low.

The user interface should also provide information on how to listen safely and information on the safe listening features that are available in the video game play device.

Examples are shown in appendix two, later 2.1. Ryan.

>> For the scenario which is more likely in a gaming system than like on an iPod or iPhone, where a single device is shared among multiple users, maybe we should add in here something about a dosimetry is tracked on a user basis as opposed to a system basis. So, right, if my son and my daughter both have accounts on Xbox, there should be separate dosimetry information.

>> So you mean where more than one user is using the same device.

>> Right.

>> Good.

>> Which is more common than you would have for an iPhone where it's relatively rare to share a device.

>> Yeah. Yeah.

How would you like to word it?
[PAUSE]

>> Can we put this as a second note? Do we put it under the same note as another bullet point? Or can we put it as a separate note in 8.1?

Same note? Under the same note?

>> 8.2.

>> You're talking about the dosimetry user interface but we are talking here about the dosimetry stimulation that it should be done separately for the two for different --

>> At which point? Before 8.2.

>> 8.1.

Peter?

- >> I was just re-reading this, the phrase that says across multiple devices used by this same individual.
- >> Yeah, I think that was for somebody who's on an iPod and then listening later you know on their TV and listening later on some other device. This is sort of the opposite.
 - >> Yeah.
 - So what -- the point Brian is making --
- >> Yeah, I see. Okay. I think I understand the point but doesn't that cover it? We're saying the same individual across multiple devices.
- >> Yes, but it is not explicitly stated that where more than person is using the device. I assume that they have separate accounts to play with, right?
 - >> But it does say the same individual.
- >> Yes, that's right, Peter. But it does not explicitly state that where more than one user are using the same device, their dose should be estimated separately, not across different devices. We are not talking about that part. We are talking about the game play device.

Yeah, Carl?

- >> Okay.
- >> Yeah, just to make the point that all devices have separate accounts people are playing on. So need to be careful on how we specify that.
- >> So does it need to be stated or not? Is it understood? Brian.
- >> I think it could be -- I think it needs to be stated but as Carl and actually as Mike was saying earlier too, it needs to be couched, you know, if a device has, you know, can distinguish individual users, it should be measured separately. And, again, not all devices will do that.
- >> Julie: A -- where more than one user account exists on a VGD may be separated for individual users.

[PAUSE]

Okay.

Let's -- sorry, go ahead. Simao.

- >> Yeah, maybe I would suggest actually after the -you have the mode two bullet and the paragraph where
 feasible. At the end of that one, I would add when a
 device is shared by various users, dosage estimates need
 to be measured separately for each individual, not -- not
 to get into the detail of the account. This is a device
 problem, implementation issue, separate the individuals.
 - >> When a VGD is --
 - >> I can share in the chat if you want.
 - >> Okay.

Okay, consideration needs to be made where a single VGD is used by multiple users where possible dosimetry

should be calculated on individual user basis.

- >> Simao Campao: Are you inserting in a different place? I was inserting in the previous paragraph.
 - >> Julie: Yes, we can put it in.

Peter, put it in that paragraph so it's not a separate one.

- >> Sorry, I've just added a second alternative but feel free to delete it.
- >> Julie: I'm saying that please put the alternative in the same paragraph as the first one, as the first note. And I see -- I saw some hands but they are down now. So Mark and --
 - >> Yeah, Mark and Richard I think.
- >> I don't see them on my screen anymore. Yes, Mark and Richard.
- >> Yeah, you have partially fixed it already because I think it also needs to support you stated to where feasible but I think you're saying it. So it's not a mandatory thing because it couldn't always be possible but where feasible I think it makes sense that you can do it on individual basis. That's the only wants to add but looks like you have fixed it. Thank you.
 - >> Julie: Richard?
- >> Yes, it's obviously not feasible for a great many cases but I'm wondering whether the standard should be pointing the direction for future equipments and systems in games and things like that that this is the direction we should be traveling in rather than just leave it as some can and some can't.

Are we trying to lead towards safer listening with this standard?

- >> Julie. Is that a question or a statement?
- >> Yes. Well, I think it's a statement, but are we using the standard to sort of point the future direction with a suitable phrase here whilst acknowledging the present which is not many games, et cetera, are able to do this?
- >> Julie: So Richard, would you like it to be reworded in some way that reflects your point of view? Please feel free to make that proposal. In the meantime, shall we hear from Mark?
- >> Yeah, I think that we need to be kind to manufacturers and people willing to comply to the standards. So I wouldn't overdo it. I understand it's already mentioning it like this in a kind way. It's already showing that it could be a good idea to in the future but if you make it too strong, I think you will make it more difficult to have people being ready to comply. So I think we need to find a good balance.

>> Thank you Mark.

Richard.

>> Yes, I acknowledge that. What has been done sometimes is a phrase added like this will be reviewed or a future consideration will be making this stronger or something like that. Just to nudge people in that direction.

[PAUSE]

>> Julie. Is that okay we make -- I don't know, a note below the note or -- I think to say that this is for future study kind of makes it weaker rather than make it stronger.

>> I surrender.

[PAUSE]

>> Well, I would remove "where possible" because you're already saying "should." And it is in the note, which is a nonnormative text. So it's just -- so this is already weak. So we don't need to do further I think. I think.

>> Michael.

>> Just a comment here. I think we need to be careful because calculation on an individual user basis across different platforms from different manufacturers requires data sharing on a level that simply doesn't happen today and there are no provisions for doing so. I would recommend that we for the time being leave where possible in there technically it might be harder to solve this than we think is my comment.

>> Thanks, Michael.

Simao Campao's point is that it's already in the note. It's not really a requirement of the standard. It's only a good practice suggestion let's say. So do we need to really say where possible because it's already not a requirement of the standard.

Mark?

>> I would also echo that I would leave where possible in. I think we have to be realistic. This is so hard to manage right now with -- if we are showing it's a good idea to make it possible but although it's weakening the weaker part, I would leave it in to make it more acceptable for people who want to endorse this and I just say it's not a mandatory so why not leave it in.

- >> Simao Campao, do you surrender?
- >> I'm just a secretariate.
- >> Just the most important person in the room.
 Brian.

>> I think I agree with Simao Campao. I think the problems of gathering data from multiple devices is orders of magnitude more difficult than keeping track of data from multiple users on a single device. You know, the latter should be relatively straightforward if the device already supports user profiles whereas the sharing of data across multiple devices is a whole new ecosystem

that needs to be created. So I guess I'm on the strike where possible team.

[PAUSE]

- >> I don't have strong feelings though.
- >> Feelings.

Okay, then I would suggest in line with what the secretariate is saying and in consideration of the fact that it is a note, it's not even a, you know, a should requirement, it's not even -- I think we can remove this.

Dorothy, maybe you will break the impasse.

- >> I don't have a good solution either, no, but I think perhaps it should be transparent whether it is calculated on an individual basis or not.
- >> You mean this information should be provided whether it is calculated on an individual basis or not.
- >> Yeah. The user should be able to know whether the estimated dose is specifically for him or her individually or for the platform as such. Because those seem to be the two options and you should be able to know whether it's one or the other.
- >> Yeah. And I think we have here we have mandated that the safe listening features should be described. I think to go into more details than this but Carl and Michael and others from the industry, please tell us if you would like us to go or again it comes down to the standard is telling you how to implement features. So we don't want to do that.

If it should be explicitly stated that this information whether it is individual or not given that it's not even a requirement I'm not -- maybe we put it here just in the note. Consideration needs to be made where a single VGD is used by multiple users, dosimetry should be collected on a -- calculated on a user basis. This information should be provided to the users. This specific information. Does that help or not?

[PAUSE]

>> Julie: Is it okay? Any concerns?
[PAUSE]

- >> Julie: Does that help Dorothy?
- >> Mm, I don't think so. It's actually whether the dosimetry is device specific or user account specific. That's the key, right?

[PAUSE]

>> This specific information whether the dosimetry is user specific or not should be provided to the users.

[PAUSE]

>> Question, do we want this sentence? Any concerns with it? Does it serve the purpose that Dorothy has highlighted?

Mark?

>> I think it's good and it's also GDPR compliant

because otherwise somebody else is gathering your data how much you have been playing and how much you have been listening and I think it's important that you are aware of it so I would leave it as is and I also rest my case that we need to remove where possible. Let's leave it, I think we've spent enough time on this note and I think it looks perfectly fine to me.

Okay.

Any concerns?

[PAUSE]

All right.

Then we leave it and we will move forward to --we've already gone through 8.2. We didn't see any comments. So moving forward to 8.2.1 which explain the 8.2.

So 8.2.1 is about messages, the VGD shall provide messages about general sound allowance use such as time spent sound allowance consumption and/or prediction of when sound allowance will be exceeded. These can be delivered at appropriate times that do not make video game play immersion. Messages could be provided upon the initial boot of the VGD prior to a game title being loaded, upon the end of a video game play session at the exit screen, using realtime notifications by using in game notification systems.

Should in-game notification systems be the selected method of safe listening notifications for the video game play device, provisions need to be made to ensure safe listening notifications should still occur even if the user enables do not disturb mode.

When the VGD dosimetry system establishes the game player has exceeded 100 percent of their weekly allowance the user shall be provided with a cue for action, which is elaborated in 8.2.1.1, but I will stop here to ask for any comments for now?

[PAUSE]

>> Okay, I don't see any hands or in the room or outside or virtually, not outside. And I will move onto 8.2.1.

Okay, cue for action message. The VDG -- VGD shall give relevant warnings and cues for action when the user exceeds hundred percent of the weekly allowance, without interrupting the game session or breaking the emotive experience. The user shall receive first a warning expressed through text or visual notification, informing that the threshold has been reached and from that this point on further listening at the same volume will pose a risk for his or her hearing.

The warning shall be followed -- Dorothy?

>> So the term a threshold has been reached, it's
like winning the game. Maybe more appropriate to say

that a limit has been exceeded. We use the term allowance. We use the term user exceeds hundred percent of weekly allowance. So probably better to apply to that terminology.

>> Thank you Dorothy. I made a change to this that expressed through text and visual notification informing that the weekly sound allowance has been exceeded and that from this point on further listening at the same volume will pose a risk for his or her hearing.

The warning shall be followed by a cue for action in which the user is offered the choice of to either accept the risk of continued listening or protect his or her hearing. The cue for action shall be linked to active options on the device, such as automatic safe volume option by which the device automatically changes the volume to achieve a assessor listening level, direct access to volume settings, setup of default volume limits, remind later option, ignore and continue option.

I see so request for the floor so I will carry onto 8.3.

A VGD shall provide with the volume control system -- yes, volume control system. A VGD shall provide an easily accessible and configurable volume control system, which is in accordance with the selected operational mode. So there were two modes, 780 or 75DB. So it will be aligned with that. To mitigate the risk of permanent hearing damage for game players and participants by setting the default volume levels to a safe listening level.

Note, in the context of video game audio, volume control refers to the mechanism by which players and users can adjust the intensity or loudness of sound output generated by a video game. A volume control system can work magically, with input from the game player, or can be part of an automatic volume control system, which is controlled by the VGD.

That is the first part that it should provide an accessible and configurable volume control system.

Moving on, since I see no requests from the floor, 8.3.1 refers to volume limiting. Please note that this term was changed from volume control limiting to volume limiting because it's -- was -- in a way it was an overkill to talk about volume control and volume limiting.

So the VGD shall provide the user with a suitable method for volume limiting when headphones or earphones are detected. This refers to a feature which provides a message relative to a predetermined reference exposure, that is a sound allowance limit, in accordance with section 8.1.

The volume limiting option message shall be

automatically provided when the user reaches hundred percent of the weekly allowance. The user shall be given the message in accordance with section 8.2.1.1 which we just read, which will allow them the option to continue listening in case they do not wish the device volume to reduce. When the message is not acknowledged, which is what this feature pertains to, so when they do not acknowledge the message, the default action will be to reduce the volume of the device to achieve a sound level at the DR -- at the DRP. Peter, what is the full form of DRP?

- >> it's probably drum reference point from the mannequin standards. In the simulator of a mannequin. If you were to put the head phone on the mannequin, you would measuring the drum reference point. It actually doesn't have any equivalent to the human drum exposure letters.
 - >> Correct. It's drum reference point.
 - >> Thank you.
- >> To achieve a sound level of the drum reference point with diffuse field correction no greater than 80 or 75 d/b/a according to mode selected. Please note again that these are features which are completely aligned with H.870. So already part of an accepted standard. If possible, the users should be given the option to customize this level. The level at which they would like their device to limit the volume, according to their preference.

It is further recommend that this should be set as the default option and that the user should have the option of turning this feature off if they do not wish to use this setting.

Okay. I will pause there and Mark, you have the floor.

>> I have a simple and easy one since you were confused by the abbreviation, Shelly, and this will be read by people who are maybe not audiologist but working in game play, I would replace DRP by ear drum reference point at least people know it's something linked to an ear drum.

>> Yeah, of course. It has been elaborated in the acronyms but if you think it's required, we can put the full form.

>> I would do it here because if you start to read this line you don't have a clue what it is about then you have to go back and the majority of people will be confused anyway. But maybe if you call it ear drum at that moment instead of drum.

>> But the problem is that it's not ear drum. It's --

>> Oh.

- >> It's a point in the simulator, the 6711. It doesn't really have -- it's not equivalent to a point in the human ear. It's an arbitrary point in a mannequin.
- >> So why is it relevant in this text, Dorothy? Because this is not stipulating what you do on a mannequin, right?
- >> No. I think it's a weak link in both standards that it's assessed on what you can measure in a mannequin and then you're assuming that it's also equivalent in humans.
- >> Because I think what you want to say to achieve a sound level at the ear drum. That's exactly what you want to say, right? And you use this reference because it's used in mannequins but any person reading it would be completely confused.
- >> No. The standard is done in terms of the diffused field. And the way you get to the diffused failed estimation is you have to go via the ear drum reference point, drum reference point ERP I think is a more common acronym and then you have to apply the diffused field correction in order to get out to free space which is our standard reference point for what's a safe listening level. It's not to do with the ear drum but you have to go via the ear drum because that's how mannequins work headphones are measured and all the rest of it.
 - >> Okay. Then we just leave it, okay?
 But I wonder about the ERP rather than DRP, but.
- >> Dorothy says it's not an ear drum but a drum reference of the mannequin.
- >> Yes, but it's trying to -- it's a necessary intermediary is what headphones are measured with.
 - >> So perhaps ear drum reference point would help.
- >> I said we will look at how this term is defined. It is already defined in he 32.1.8 and then align it with that so as to not have different terms floating around the document.

Is that okay Richard and Mark?

>> Yes.

Yes, okay with me.

- >> Fine for me as well.
- >> Let me just make that note.
- >> I think we cannot solve this confusion because this terminology is in all the standards that we use and refer to. So we have to accept it even if it isn't really a drum reference point.
- >> Safe listening is defined in terms of the diffused field. It's not defined in what's going on inside the ear.

>> thanks, Richard.

Peter.

- >> Just a quick question for Richard. Is the ERP an equivalent to the DRP? Are they interchangeable or is the ERP a completely different thing altogether?
- >> I can't be absolutely certain. They are very close indeed but I'm sure there's a slight difference like a millimeter or something. I don't know.
 - >> Thank you.
- >> If I can I have a definition from ITU in front of me.
 - >> Mm-hmm.
- >> Which states DRP earphone reference point located at the end of the ear canal responding to the ear drum position.
 - 3.4ITUTP.
- >> Peter, can you read out 3.1.8 because I don't have -- yeah, I would have to scroll to the top of the document and lose this.

Can you read it out from your document?

- >> The one replaced?
- >> Yeah.

[PAUSE]

>> We've got 3.1.12 in this document which is has been acquired from 8.17 is the reference point located at the end of the ear canal corresponding to the ear drum position and 3.1.8 is the first reference to DR P and it's under the definition of diffuse field frequency response of H80S sound pickup as 58 which is what Mark referenced. Difference in decibels between a third octave spectrum level of the acoustic pressure at the ear drum reference point DRP and the third octave spectrum level at the HTS reference point HRP in a diffuse sound field.

[PAUSE]

- >> But as Dorothy just said, if this is a common aspect of all standards, it's probably a bigger issue than what we can solve within the standard.
- >> Then let's move on and just check that this is aligned. So we will check that.

All right, the next 8.3.2 refers to password protected, what was called volume control but was changed to sound output control. So password protected sound outwork control. So the VGD shall of the option whereby -- where if it -- if it has a child or parental account system also known as parental controls the mack mum sound output can be fixed and locked in the settings possibly through the use of a password. The intent of this feature is to allow parents to limit the maximum sound output of a child's device in a way that cannot be changed by the child.

All right, I see no request from the floor so we move on.

8.4 is head phone safety mode and as you all know this is not from H.870. The head phone safety mode. A VGD shall provide a default head phone safety mode where the audio output for VGD for headphones is also intended for use with a speaker. The default head phone safety mode shall be implemented when the VGD is capable of detecting that users are moving from free field to headphones on the same audio output and automatic volume reduction of at least 3 decibels occurs.

I'll stop here.

Begun, this was discussed last time and the only change we made was to replace loudness units with decibels. Ryan.

>> I'm curious why we're limiting this to plugging headphones in the same audio output. I'm thinking of an example where I've got a PlayStation controller which has a head set jack and so I'm going from my stereo system to my headphones whether that's a scenario we care about or if we really care about. This seems more like a PC thing where you have more of a shared jack for speakers and headphones.

>> Mark and then Mike.

>> Yeah, this was heavily discussed last time and the thing is that if you would always lower that by 3 DB and if you have a separate volume control for each of your outputs that would mean that even if it sits correctly that you would automatically drop another 3DB. So cut the energy in half because that's what you do. And that was an objection by also I guess others this becomes ridiculous because it becomes more bothering than it's helping at that moment but everybody was agreeing when you have the same you plug something in then it's of course very important because there is no separate control of that volume for different output systems.

>> My comment is I don't really understand what the 3DB reduction occurs from when you have free field speakers that you don't know the sensitivity of. You're also switching from a speaker or amplifier to head phone amplifier with different gains. So 3DB reduction from what? An unknown quantity really.

>> Comments?
[PAUSE]

>> So the concern raised about I Michael is that we don't really know what is the output from the free field because we don't have a way to measure that in which case how are we reducing it by 3 decibels.

Mark?

>> That was discussed as well and I think that's something that kind of is sensible, right? So you cut energy in half so reduce it by 50 percent. That seems like a -- you could drop it by 20, easily do that but

then it becomes -- just a signal if you plug something in went to be sure that we lowered the volume so we avoid over exposure which is sudden and could be quite annoying and also a discussion what is reasonable, what is overdoing it underdoing it and wouldn't be 100 percent correct answer but alternative is not to have head phone safety mode and not doing anything and that is the worst case.

>> Yeah, some of it we talked about this a long time at the last meeting and I would be hesitant to change the text here.

>> Is that better? Yeah, I'll start again. So we spent a long time on this text before and I would be hesitant to change it again without good reason. I mean, it seems sensible that this level is reduced by this level. It's the output of that audio connection that's reduced. So I think that's clear.

>> Thank you. Any other comments? All right.

Do we want to specifically mention that instead of saying reduction of 3DB and in addition to seeing that reducing the sound energy by half as Mark was saying that or we leave it as such. I think it's with Carl that we debated this for considerable time last time so maybe we should move on.

But we always have the option in case you have thoughts to come back to this tomorrow so we still have another day.

Okay.

Let's move on then to do safe listening for video game play software. So this is clause nine and this is specific of course to this particular standard not coming from H.870. Safe listening features game play software, safe feature listening compliance shall be achieved by a video game software title separate to that of the VGD it is designed to run on. Should equal features be available on the VGD they are not required in the video game play software and can be admitted. And so this is where titles are paired with a particular device and if those devices are compliant then. Safe listening warning, video gaming software, video game play software shall provide a message of warning to game players regarding auditory Rick, for example hearing loss tinnitus associated with loud sounds and extended exposure which can occur when taking part in video game play activities. Could people online please mute themselves so that we don't hear the disturbance in the background please.

Richard, would you mute yourself.

>> My poll jeez.

>> No be pro. Thank you.

So video game software shall provide a message warning to game players regarding auditory risks associated with loud sounds and extended exposure which can occur when taking part in video game play activities.

Note one, the warnings or messages described in this clause are separate and of a different nature to those outlined in 8.2.1 and are of a general health information nature as opposed to warnings related to dose symmetry readings which were in clause seven. And appendix three will give examples of the messages or warnings. So the type of messages and warnings that are proposed in this are initial load screen warnings, that is 9.1-pint one, the video game play software warning shall be displayed upon initial loading of the game notifying that the gamer -- notifying the gamer that loud sounds and extended exposure can be a source of unsafe listening. The warning should also include a description of safe sound level dosage and examples auditory symptoms to be aware of should hearing be put at risk.

Example, a client game software title should include a warning which warns the game player of potential risk to hearing and provides examples of potential symptoms to be aware of that indicate unsafe listening that indicate unsafe listening.

Any comments so far?
[PAUSE]

Okay. Sorry, I can't see whose raised hand.

- >> So the only small thing is perhaps we have to be careful that the absence of these symptoms does not indicate that they might not be at risk. I mean, the mention cannot be if you don't hearing and you don't have fullness then you're good because that's not the case. We know that many of the early symptoms they come with no symptoms. Some of the early come with no symptoms.
 - >> Yeah, good point Dorothy we can put that in.
 - >> Yep, sorry, Brian.
- >> We may also want to make this same modification to the devices section and possibly even the next update of 8.70.
- >> Good point. Thank you. So let's look for some
 wording there that can at least address this for now.
 [PAUSE]

Okay, can we -- so I have a proposal for a text for your consideration, the message should also indicate that absence of these symptoms does not indicate an absence of auditory damage since such damage may often be asymptomatic. To add wordy? Too confusing.

>> I think this was fine with me but I was actually more pragmatic. I was just saying that the message should not give indication that the absence of such symptoms would warrant safe listening. This is actually

should also indicate that the absence of symptoms could also hold a risk. This is a small step further. I don't mind but it's not exactly what I suggest.

>> I don't understand what exactly your proposal is. If you can put it in the chat your proposal of text Dorothy we can consider is, yeah. But it's a very good point.

Mark?

- >> Like your sentence I would just leave out the last part, does not indicate an absence of auditory damage and stop there.
 - >> Any further comments?
- >> Are you deliberately using should for the second part of that?
- >> Because -- so we have used here should. So the video game play software warning shall be displayed but what that warning should contain is the warning should also include a description of the safe level and so on. So in continuation of that I have used the term should. I'm looking in chat. My examples of such damage of symptoms for damaging auditory include or may have no symptom at all. So this is the alternate which Dorothy has suggested. I'm going to post it here as an alternate on the document for us to consider.

I should put it risk.

Yeah, so and this is what is Dorothy's proposal as opposed to mine. So hers is to add the phrase or may not have any symptoms at all. The mess -- and I already read out what my proposal was. If it's okay, we'll keep -- anybody has concerns about and this is really an implementation thing if it is okay let's go with the sentence I have proposed.

- >> Just for the record, that text was suggested by another colleague in the chat. The other suggestion was that the video game play software warning can't suggest that the absence of symptoms would default suggest safe listening. That was the pragmatic version of it.
- >> Yeah you can so what you're saying we've turned it around to a positive sentence rather than can't suggest the absences. To me it seems like a double negative. Let me ask a simple question. Does anybody have any concerns with how the sentence is currently framed, the message should also indicate this is an implementation thing.

Mark?

>> I was talking to a closed microphone that. Is not smart. Just saying I'm very happy with that sentence at that moment but the question is then do we have to repeat examples of potential symptoms since you're already putting that at some point? It's maybe a little overkill.

- >> I didn't understand what you mean.
- >> Oh, but now you removed part of the sentence. Now it's fine again. No, no, I had the feeling you had mentioned those symptoms double but maybe the message should also indicate absence is that I think it's important you have that in place. It's a little strange because you only talk examples of potential symptoms in the examples later. So the order of the sentence is quite strange.
- >> So what's below is really an example and we have examples, we can put the examples in the appendix if you prefer and just make this clearer here.
- >> No, in my experience, I think it's not bad at all to have examples of symptoms. What we know if people start to experience ringing or whistling in the ear, I would hope that reflexes safer. Mentioning the symptoms is not a bad idea but you have it already in there ringing in the ear fullness right and at the end have an example to meet that slightly strange in the buildup.
- >> What I'm suggesting is not that we delete the symptoms but remove this example and we move or we add it to the appendix art where we have examples of messages and here we just leave it with the warning should include, not also, should include, I would suggest structuring it more systemically a suggest of what they should be aware of, examples of auditory symptoms and should indicate that the absence doesn't indicate absence of auditory damage.
- >> I am perfectly happy with that. Good solution. Thank you.
- >> Anybody with objections to that? Restructuring Carl.
- >> Yes, just one word to add. We have do not necessarily indicate.
- >> So the absence of these symptoms do not necessarily indicate. That's what you're suggesting; is that right?
 - >> I just add necessarily so you already had.
 - >> Any further inputs on this?

Mm-hmm, okay.

- So if everybody is okay with this for now, let's complete 9.1.2 and then we take a break for coffee and I can see that Yanna's vigorous shake of her head. Point noted.
- 9.1.2, after a period of continuous game play, again continuing with the messaging, the game title shall provide additional notifications or messages during convenient moments in the game that do not break video game play immersion.

Noted one, when accessing audio option convenient moments may include the rend of a round of game play

after completing a level after losing a life when pausing game at the end of two hours of continuous game play upon exit, et cetera.

See appendix 2.2 for a visual examples.

Okay. I don't see any requests for the floor. I will pause for a minute and then disperse for coffee. But Serge, off comment.

- >> Sorry, are we doing 9.2 or not? Not yet.
- >> Not yet.
- >> So what we are going to do then is take a break for coffee.
 - >> Yeah.
- >> And when we come back we will start with the contentious topic of the title of this document guideline recommendation standard whatever we call it which may mean that we will start 9.2 tomorrow depending upon how we progress post coffee, okay? So make sure you don't take too much coffee and come back with too much energy to bite. So we'll leave this for now and come back at 15 minutes past 4:00.
 - >> Recording stopped

(break)

- >> EMILY (Live CART Captioner): Standing by.
- >> Hey. Welcome back, everybody.

[PAUSE]

Should we wait for Simao? Let's wait for Simao to return.

[PAUSE]

>> So welcome back everybody after the coffee break or activity break depending upon how one took it. And we would like to discuss now the title of this standard, and the main point of discussion here is about retaining esports as part of the title. So we have had a number of discussions on this last time and in WHO we showed you we will go back, reflect on your concerns, and your communications and also discuss potential alternatives. We have not proposed any alternatives as you have seen simply because we think this is simple and clear and we don't want to make it complicated and we are still of the same position after having had many discussions within WHO and outside and also with ITU that esports should be retained and I will give the reasons again why we think this should be retained.

So.

Devices used for video game play and software title. We understand it is the same devices being used for esports sports, E sports players are also video game players so on, so forth. All of those contentions and concerns have been -- or points have been raised in the past.

Nevertheless, we do think that even if it is the

same body and video game play is considered to be more comprehensive combined of term, then esports, we do think we want to retain this there for the purpose of conveying this -- or bringing in its perspective those stake holds who identify with E sports versus game play. So it is for the reason of being inclusive of all stake holds who are engaged in E sports that we want to include it. also heard the concern last time that inclusion E sports in it may raise certain expectations from the standard which the standard does not fulfill. We are happy to add certain things to the scope which clarified this if it is not already clear because the scope clearly states it is for devices, titles, and peripherals which are used in game play or in audio sports -- or in esports context. It does not refer to other environmental factor whether it is noise attenuation or noise regulations related to the venue. And this if it is required can be further clarified in the scope. So we would advocate very strongly to maintain this simply because it makes a title -- it makes the title more inclusive and as far as anybody who is going to actually implement it, any technological person will look at the scope and know it does not talk about noise attenuation which I saw as the leading point that was left out of the standard in order to make it applicable to E sports context. So I will stop there and ask for opinions from the floor, the virtual and physical floor.

[PAUSE]

>> No comments means all good.

Sarah, you have your hand raised. Please go ahead.

>> I think there is someone else before me.

Richard?

>> Yes, I just wanted to say I think Shelly's right; it just seems to make this an all-inclusive standard and the detail will sort of deal with -- detail within the standard will deal with any difficulties or areas which could be misunderstood so I think in the title it makes a lot of sense.

Thank you, Shelly.

>> Thank you, Richard.

Sarah?

>> Yes, I would strongly support this because from the point of view of the research that we have done, it's very much important to be inclusive here because the risks are there as well. So I think from let's say policy perspective it's very important within the perspective of deepening this but at least it's important to make the point the risk there and by saying this we think is very important way.

>> Thank you, Sarah.

Yeah.

I would also like to -- I think the work stream we've had multiple contacts with different associations and people active in esports and got the feeling if you only use game play and don't include esports they feel it's not for them. On the other hand, we view a very positive attitude towards healthy esports play and what to do correctly and we see there's all of interest of doing things right so that is why I think it should be in the title. I think it's strengthening it. May also strengthen the impact and string thing the standard also for game play because I think they see E sports as a more ultimate version of game play and it looks like it's enhancing the standard as such and the title and making it stronger. So, yes, fully approved and fully support this.

>> Thank you, Mark. Tatiana.

Serge just had to step out but maybe two comments and a question. I think one comment is since of course the provisions on E sports are now in the annexes and not in the scope it might be confusing if E sports is maintained in the title. One suggestion could be but open for discussion an alternative, perhaps safe listening for video game play comma including competitive video competitive play whether that might be able to cover it and a question is are you planning in the near future to develop a separate standard specifically for esports?

>> Thank you. I think this question -- so firstly answering your question, the question came up also last time if we are planning to develop and we said that, no. If at a later time we want to add more features we would like to add it to this standard rather than create another standard so we don't see really the value to do that. We already have regulations about the -- or recommendations about the venue part of it which is included right now in the appendix but ultimately it could be moved also to the main body if we were to expand it at a later date. We would like to retain that potential here rather than have it in a separate document.

Regarding your -- and again here we would really like to man contain esports and not competitive video game play which is E sports. Thank you.

Yeah, Malita.

>> I would again propose that we keep esports in the title going along with saying this inclusivity so thanks that's for everyone. This is a global health document and not an industry like technical paper. If we were talking about endemic industry it would be a totally different conversation but since this is really for everyone globally, esports I think fits well here. You

know, with the Olympic esports games that are coming up with all of the global esports federation, with the esports world cup, currently the largest gaming event in the world, esports is there and like I think it was Mark saying if we don't include esports in the title they may think it's not for them when it is for them and everyone. I am the proponent of keeping esports in the title.

>> Thank you, Malita.

Any other comments from the floor virtual or physical?

[PAUSE]

>> So thank you Tatiana for the concerns which you also outlined in the e-mail that you had sent to us at WHO and I must say for us the concern is more about leaving it out. We do not see the noninclusion -- or this somehow raises an expectation for -- and we are happy to hear what those expectations which are not fulfilled. Last time we heard maybe it would be the attenuation of, you know, the game play let's say box or place where the person is seated, we can make a specific reference that -- to the scope that it does not include this or does not include specifics of attenuation. you're welcome I would say also Serge to make those suggestions which could clarify it in the scope further if it is needed but also from the perspective of, with un, of being inclusive, two of our communication following this because as Malita mentioned, it's not something for the industry but it's also a global health document. That's why WHO and ITU are working on it together. So we would really like to be able to influence those groups or to make sure that the groups who work on esports feel this is for them and thirdly also from the perspective as we discussed that in future we may want to include those other points within it which at the moment we don't have the background research. We have not included those experts to discuss and deliver those things. We want to get out the things about devices first but it's not to say that in the second iteration of this we could not include also those particular features if we have both the research and experts to support that.

Kari?

>> Yes, thank you. I'm not trying to broaden the scope but something crossed my mind. As we talk about game play esports and all, I'm wondering how about entertainment? For example, could we even -- all these good points here would also apply to any activities related to digital entertainment for example anything that has to do something to do with your ears in terms of having fun or even competition in this sense, so yeah.

>> Thank you. I'm happy to hear that however I

think we need to really study that and also understand what are because entertainment is a very broad term. Includes music listening and things which are covered in issue 870 includes also video game play may include movies and so on so forth listening to podcasts, et cetera, et cetera. We need to be -- we need to study that. We can't just add it to the title without studying it

>> May I add, so basically how I came to manage I'm thinking of game boxes that we have, there is always one game for karaoke and along that line, it is in that sense we don't want to fall into a situation where we don't comply, say this is not a game, you know what I mean? That's where the idea came from. I do understand we need to keep a scope but how could we also not leave a loop where people could choose that and not comply.

>> Wouldn't karaoke fall under -- isn't that a venue whether it's a restaurant or another venue so you already have a different standard that applies to it?

>> I think maybe referring to games like sing star video games for the PlayStation you play at home and they are essentially karaoke some type games. The industry has wrestled for a long time with what is the definition of a game and we've never really had a satisfactory answer to that.

>> Can we reflect that within the con dependent that this also -- I mean why is that not a video game if it is, you know, on a video gaming device, obviously like a PlayStation or something or an Xbox may not be so specific to brands and why is it not a video game then? Why would it not come in the scope of a video game?

>> I don't think there are many people who would take a game like sing star or rock band and not call it a video game. That said I suppose I could imagine playing old karaoke applications which do nothing else except provide background music to sing to that might not be called games but yeah.

>> To keep this manageable and all and also to know that we don't want, you know, perfection to be the enemy of the good, maybe this is a point we need to note for the second version when we can also look at the more in detail into the different like sound attenuation in esports but also different times of video games which may not necessarily be reflected or covered in this such as karaoke based games and so on.

So maybe that is something we need to do note internally to keep in our perspective. Let me give the floor to Mark on line and then to Carl.

>> Yes, I think yesterday the proposal of this standard did not include sing along video game but since today it was added that also the microphone input could

be there, I don't see why the sing along video game couldn't be part of the standard for this time so I think it is already included. We need to be careful if you talk about, that's a different story but that is indeed maybe part of the venues standard so I think it's quite inclusive as such but thank you for the suggestion on the other hand. Let's keep enough focus. It's already tough enough to get this up and running the way it is.

Thank you.

>> Thanks, Mark.

Carl?

>> Yes, thank you. I disagree with what Mark just said. Regarding the title, we're happy to see that guidance for esports has gone to an appendix. That's very good from our point of view. As far as the title goes, we can live with the title with E sports in it.

Thank you.

- >> Thank you, Carl.
- >> I think one more thing in favor of leaving esports in makes it very clear since the specification since there are sections targeted at game developers that developers of the large esports titles know this is something that's they should definitely be aware of.
 - >> Thank you, Brian.

Any other comments? On this?

>> Okay. There is no other comment, no other requests for the floor so we can move ahead. And E sports in the title.

Let's move on then to where we had stopped before coffee which was 9.2.

Serge, do you want it take the floor? No, no, just asking. Your hand was up, so -- okay. Okay. (Chuckles).

Good.

Yeah, okay. So 9.2. Sound category volume controls. So the video game software shall include independence sound category volume controls under the game audio menu options allowing the game player to adjust levels of different sounds within the game.

Yeah, and here the question or the comment we noted earlier in the -- in discussions on the definition was that should we be specific that the game software shall include independence, sound category volume controls under the game menu option should it be necessarily specified or should it be left open just to say shall include dependence some category volume controls allowing the game player to adjust levels of different sounds within the game.

- >> Probably it's better to omit that.
- >> Any other comment?
- >> Yes.

- >> Yes, please, go ahead.
- >> I would like to propose a slide change to allow for a bit more flexibility for video game developers and it is that besides -- well, besides or instead of song -- volume controls also the option for muting the channels, okay, so something like the last -- allow the game player to adjust levels of different sounds within the game or mute them. So especially in smarter games in contemplation implementation of volume controls can be more complicated while muting, completely muting the sound it's easier and so this will allow for more flexibility for flexibility and at the end of the day for future.

So then also in the second paragraph should read sound category volume controls of this nature can provide game player are an efficient way to reduce or mute either blah blah.

- >> I have added on the screen.
- >> Oh, sorry. I was looking at --
- >> Yeah, no worries.
- So just here coming to the first point the video game software shall include independence sound category volume controls allowing the game player to adjust levels of different sounds within the game. So is there any concern about removing under the game audio menu options from anybody else?

[PAUSE]

- >> Okay, no ob -- yeah, Carl.
- >> Sorry, where's the proposal come from? I missed that under the game audio menu options.
- >> So what we discussed in the morning during definitions and right now stated by Serge is we remove under the game audio option. We do not specify this should be under the game menu audio options. It can be but can also be like we discussed in the morning maybe an icon popping there where you can do this kind of customization or something so that is really an implementation issue. So do we need to specify this should be under the game audio mention options or leave it open so that is the question. If you are okay with leaving it open, we just delete under the game audio menu option, allowing the game player to adjust levels of different sounds within the game. That is the first point and let's focus on that now if there are any comments from any of the participants about that, any concerns about deleting that.

>>

- >> Would it be acceptable to say for example under the game audio menu options.
 - >> Any -- yeah, Brian.
 - >> Do we get concerned at all since this a shall

that people will try to game the system and they didn't want to put a category volume in but they do but only if you provide this Byzantine archaic sequence that brings up the hidden volume screen level, or do we generally not care about that kind of thing in a spec like this?

- >> I didn't understand.
- >> Yeah, if some -- I'm trying to take the mind-set of a developer who wants to hear the spec but doesn't really want to have the users fussing with their volume levels if they made it an archaic hard to get to not documented place does that meet the spec and do we care about lawyering the words to prevent that or is this kind of the level of detail that we want in this spec? I think this is probably the level of detail we want otherwise we would add five paragraphs to every shall. I just wanted to bring that up for completeness.
- >> It's a good point. Ultimately we are always told by developers in private sector that we should not dictate how these are to be implemented but should trust that maybe what we could do is shall included independent category volume control spec you know saying that in a visible place it is also very fluffy in a way and how do we judge what is a visible place if you look for compliance but you had some comment Tatiana.
- >> Just your question is your concern with the word shall?
 - >> Since it is a shall.
 - >> Which is mandatory, exactly.
- >> Then I think it's definitely worth the shalls thinking about the words a little bit more carefully and as I'm talking this through, maybe I don't think this is so much of an issue. I just wanted to bring it up as a potential loop hole. The developer could technically meet the spec even though it's not practically meeting the spec.

Developers can -- I've seen developers do lots of things to try and get around rules.

[PAUSE]

- >> Yes, thank you, it would.
- >> Mark.
- >> Yes.
- >> Please, please.
- >> Just saying that the title is perfectly fine as such and I think that maybe that's a discussion for a technical compliance paper, how do you evaluate if it allows the player to adjust the levels easily if it's very difficult to be very well hidden then you could say in a technical document on compliance that this is not serious that it needs to be easy to find but I don't think you need to specify that much in the standard as much. I think it's self explaining that if it needs to

allow the player to adjust it, the player needs to be able to find it, right? So that's I didn't think it's fine. That it's based as it is and keep it simple. And I think it's a clear title for me.

Thanks.

- >> These controls should be easy to find. For example, under the engagement audio menu option.
 - >> Sounds like a good solution.
 - >> Sorry?
 - >> Sounds like a very good solution.
 - >> Okay. Thank you Mark.
 - I see Brian nodding but Tatiana and then Carl.
- >> Just one small suggested edition to assure consistency with what Serge suggested. Should we also in this first paragraph mention not only adjust levels of different sounds within the game or mute them so it's consistent with the second one?
 - >> From Carl and then come back to this. Carl?
- >> Yeah, I wasn't happy with the text you just added these controls should be easy to fine. I mean, how do you test for that? One person's view on whether it's easy to find is different from another. So I think you run into problems there.
- >> Yes, of course. It is quite subjective. It is still something we can kind of when we are looking at compliance see that what should be you need to go through three steps or, you know, ten steps to get to that category control. Somehow could be reflected there if we are not seeing anything.

Mm-hmm.

All right, let's finish this and come to the mute later but Kari.

- >> Yes. Regard to the comment from Carl, I think in this case would it be possible to for example reference existing standards in terms of accessibility? Because that would already cover this easy to find, you know, those easy to perceive and all those kind of things around the standard and I also have a comment with regarding to Tatiana's comment about the mute, yeah.
- >> Let's hold that for the moment and come back to it but does anybody -- Masah do you know if accessibility standards or anybody else that talk about what is in terms of easy to find or what is easily accessible on a device, is there a quantification of that?
 - >> Easy to find device?
 - >> no, easy to find feature let's say.
- >> I think that's a very good question and do you have any idea, any standards your --
- >> Yeah, can I just add in for example here it's related to like in the digital accessibility we have

standard guidelines where we follow the WCAG which is a Web content accessibility guide lanes that talk about four things about being persist -- you can perceive it, it's robust, it's useable and I think those standards could be mentioned for example then you don't need to redefine the things it's already there.

- >> That's WCAG, right.
- >> Correct it is the Web content but the thing is being perceivable. They have guidelines about what is perceivable, operational, useable, robust. And these kind of guidelines I think is standard across the board. It's not just for the content.
- >> In that case I think it would be better to refer to like ISO or I think we have also the EU standard for that. But WCAG itself, I don't think it's -- at the device level I think it's kind of difficult to follow.
- >> Correct. It is not using the WCAG is for content but similar content in that sense. You might want to pull in something here that fits with the European accessibility Act, something along those lines where you can put in something.
- >> But does that have any specifications or recommendations for devices and the content within those in terms of finding them?
- >> So what I'm saying is it just pertaining to the phrase that we had earlier you know toes use what do you mean by that because it could be subjective and then we could point to guidelines, easy to use perceived as something I can touch and change. It is robust and like the forward I just mentioned just an idea so we don't reinvent the wheel and creating things that's already guidelines being used, yeah.
- >> I understand. I was on the team W3C team so I worked with the WCAG people and -- but one of the things they had trouble with was devices because they cannot talk about devices in WCAG. So even though they had these features accessibility features but they didn't apply, they don't apply to devices. So I -- and If you cannot really define in terms of devices, then those features will be as idealized or abstract as just accessible or something like that. See what I mean? Because you cannot actually implement perception. How do you say perception?
- >> Yes, exactly. So I think there's some points in there. What I'm trying to say is that instead of, you know, wordsmithing again right here, there are some stuff that people have already discussed like what you were just discussed in.
- >> Can I make a suggestion in order to move this forward is that Kari make a suggestion of what exactly could be included here and what it references. So maybe

you can make that tomorrow. We will come back to this tomorrow with a concrete proposal and if we find that that can be apply and if everybody agrees we can include it. Thank you.

Mark?

>> Yeah. I think it clearly specifies what is the intention, right? It gives an example of what it could be and I would leave the rest of the discussion how you can evaluate what is easy and whatever to leave that to a next phase in a technical paper describing compliance for the standard. For now I think this is more than clear enough. It is very clear what is the intention of this and I would leave it for now for this standard but remember if you make a technical paper for that moment you want to look how it can be tested f it's allowing the game player to adjust it but I think that's a different discussion we shouldn't go too much into depth. afraid if you add too much detail on this or refer to another standard you may be opening a can of worms that makes it more difficult to convince manufacturers and game developers to comply to this standard.

- >> I agree. I agree. Just I think right in terms of this level where we are. Thank you.
 - >> Thank you.
- >> if we hear anything from you tomorrow we can review it. Otherwise we will leave it as it is.

Any further concerns on this?

[PAUSE]

>> All right.

So then looking at the comment about including -- so video game software should include independent sound category volume controls allowing the game player to adjust or mute levels of different sounds within game.

And then again saying sound category volume controls of this nature can provide game players an efficient way to reduce or mute either specific sounds or the overall master volume game level within the game.

Okay.

Mark and then Serge. Just a language issue. So or you adjust the level or you mute something but you don't mute level.

>> Yeah, okay of the adjust. Sorry. Thank you, Mark.

Serge and then Brian.

- >> Yeah, then if accepted then maybe for clarity there should be independent song category volume or mute controls.
 - >> Sorry? Please repeat that.
- >> Yes, the first sentence, the video game software shall include independent sound category volume controls or mute controls or mute options.

- >> Okay. It isn't enough to put that in the next?
- >> No, the things that are -- especially for some developers, it would be much easier to implement an option to completely mute the sound but not a volume control. So it's either -- it can be either/or. So volume controls of course if you put the volume down to zero you are actually muting it as well but you need other that maybe find much easier, especially for smaller games to just mute.
- >> Thank you, but I think that would not serve the intent of this feature which is not just to give them an all or none option because, yeah, that option may not be acceptable to people to just mute but not be able to reduce the sound category volume control so I think we have specified that that it could be adjust or adjust the levels of or mute different sounds but I would not put it right here.
 - >> Sorry.
 - >> Brian take the floor and then back to you Serge. Brian.
- >> I get what you're saying what if we said shall include independent sound category volume and/or mute controls?
- >> I'm okay with and mute controls but not all mute controls in in this step because we want to give them an option where they can reduce their sound consumption. Let's say you're listening to a chat, right? Now if the only option is that I listen to it at -- without really reducing the volume or you don't listen to it at all, I want to hear what's going on; I just don't want to blast it in my ears. So then that option is no longer available if we give this -- put it here as and/or.

Serge.

- >> Yeah, then I would just like to highlight that there will be implementation issues for thousands of small developers. So of course introducing volume controls for the company is trivial but for thousands of video game developers that may want to offer the option of having a safe listening -- compliant to the standard they won't be able. While at the end of the day by muting channels independently which is very common in mobile games for example or in cache games then they will be compliant. Also for some artistic games where maybe the volume control would be difficult to implement but muting the channel completely, no.
- >> And we've already sort of reduced the kind of, you know, directiveness I would say of this particular feature or recommendation by saying that examples of such controls. If you remember the earlier iteration of this had all of them listed out as it should do this and this and this but right now we are not talking about really

about what all it should include. It depends on the game. It depends on the nature of it and so on.

However, where -- so I would not -- and I think that putting it as reduce -- give the volume control versus the -- only the mute option to me is not a good option from a behavior change perspective also but maybe Sarah can comment on that better than I can but that is my perspective. But let us hear from Mark and then anybody else who wants to take the floor.

>> Yeah, we have to be careful that we don't talk about all or nothing because I think that people with tinnitus can be very sensitive to specific signals and effect the muting of prospective tinnitus muting is something that can be very attractive I understand you have -- the only option you have is to mute everything that that is not an option but being able to mute specific that provoke issues, I really like the and/or and if it makes it easier to implement, why not do that because I think it's in the interest of a game developer to only mute everything at that moment. That's a minority that might do that but I think since we also could have specifics that you only want to mute if that's the case that's fine because we are talking about different category. Not talking about all the sounds at that moment. I'm kind of in favor of doing the and/or mute in this one.

>> Mark, we have put tinnitus sounds are in another feature. So they are already included in this standard separately so I don't think they are going to be included here. This is really about the volume controls, the sound category controls, the different volume. Not about the nature of the volume of the sound for one and yeah I don't think putting an all or none process there again I would maintain that but let's hear from Brian and then from Serge.

>> I want to understand because I think I agree with you Shelly. You're saying if a game were to only implement mute on categories, then a user is less likely to do any safe hearing stuff because all they really wanted to do was bring down the speech a little bit but they don't want to turn it off so you will have less people enjoying the safe features.

(Coughing).

Pardon me. So I think I agree with you on this one. >> Thank you, Brian.

Sarah.

>> You are muted Sarah so we don't -- you should use the volume control not the mute button.

>> Yeah, sorry.

Seeing what we are seeing in our study and following the behaviors change -- stage of change model there are

also people they would go for mute because it depend very much where they are from the risk perception and what they can do. So I would definitely leave it to make sure that we cover all the possible stages. So for some people will be reducing changing but also muting. To feel their category they will find in the research.

>> I looked at it. So there is a suggestion also in the chat. Let me post it here to adjust of the level or at the very least to adjust the levels or at the very least to mute sound chapel selectively or to mute different sounds within the game.

>> That was my proposal because I thought this would be compassionate with those making games that cannot administer of full volume control on each individual sound channel. I also think that we have to anticipate that the complexity of games can increase and maybe at the moment we can -- we have some imagination that we will have a sound control or a mixer as we know it from other where we adjust various levels but that this might actually increase and become very very complex. So I just thought that we shouldn't exclude the option of just selectively muting the channels.

>> Hmm, yeah.

Mark.

>> Well, having listened to all the arguments, I understand that we don't want all on off so I understand that and I wouldn't mention at the very least because that's -- I don't know why you would do that but I would say that selectively mute different channels I think or selectively mute different channels I think that makes all the sense.

>> The suggestions of using at the very least was that If you cannot apply continuous daily If you cannot give them a volume control then you can at least give them the on off option. That was --

>> I understand that Dorothy but I think I'm just saying that I would leave the option of muting in. those people who can only mute at that moment they can already say well at least we can mute. I wouldn't provoke it more by saying at the very least and I understand also the logic you don't want it in the first line that you would say category volume controls and mute option. I would leave it out there. But this allows you because you can say mute something also change the volume quite dramatically and I think it's already in there. I think the way it looks now allows you to continue to do as good as you can with the options you have but I wouldn't promote it. So we found the kind of good compromise in making it possible but not promoting it too much and showing signaling in fact the best thing is to have category volume controls but mute something also an

option.

>> Any further comments?
Carl.

- >> Yes, I think this could ab good compromise. I got a question though about we say mute different sounds within the game. Are we just referencing the examples here rather than be able to master volume or is the intention to be everything?
- >> The master game volume control was removed from here. That has been deleted. So the sound category volume controls should be easily and readily available so that point is already there. So that adjustments for comfort are quick to perform. Examples of such controls could be game dialogue level, sound effects, music level, voice chat.
 - >> But it's in bullet .2.
 - >> Yes, good point.
 - >> Peter, are you still online.
 [PAUSE]
 - >> No, he is not.

Yeah, no, no, he told me he would go off.

But yeah I wonder why we have left that in the first one and removed it from -- we discussed that Brian do you have a perspective on that on why we have master volume level within the game and the as No. 2 there?

>> Sorry, just that we removed it from that list because we already have in two. So I don't think the intention was to remove it.

My question was more to do with the mute side of things. Are we looking just to mute the different sounds within the game given those examples or is included in that the way it reads at the moment is we should also mute the master volume control and what was the intention.

- >> Thank you Carl for clarifying that.
- So the question really here in this perspective is there a concern if we put all mute with respect to the overall master volume level within the game, right?
 - >> Yes, need --
- >> Yeah. But it's really can provide game play is an efficient way to reduce or mute either. So it's about the implementation if you think you don't want them to mute the master volume level within the game then don't give that option.

But I see Mark your hand is raised.

- >> I'm slightly confused because it says 9.2 sound category volume controls. If it's a sound category volume control it shouldn't be the master volume because you don't have any categories left. Then it's everything. I wonder why the master volume is in here.
 - >> Yes, but we discussed the master volume control

but I would like to old that discussion for when Peter was here because he was -- he will recall what the discussions were in that respect last time but we discussed this and we agreed to leave it in here while removing it from the second part and putting the sound category volume controls so what they could consist of, just examples, not like a list which is you should do this and this because of course it could be more or less depending upon the game.

- >> Okay. Then I'll hear more later. Thank you.
- >> Yeah. I'll make a note here to discuss it tomorrow.

[PAUSE]

>> All right. So 9.2, the way it is currently with a note to discuss the overall volume level tomorrow if we still need to and can we leave it as it is?

Any objections to leaving it as it stands currently? [PAUSE]

>> Okay. So I'm going to make a slight change to this because somehow it doesn't read right to me. This could be for example under the -- is that okay? Any objection to that?

Carl?

- >> Yeah, no, mine was more just editorial I think perhaps one and two should be swapped over if you are going to keep two.
 - >> I have no objection to that.
 - I think we need to remove also the either from here.
- >> Okay. We will come back tomorrow to the issue of the master volume level within the game.

Let's move to 9.3 title dependent safe listening features the video game should include default safe listening features within the game.

Please note that this is not a mandate we feature. It is a should include default safe listening features within the game with the intent to reduce the oral sound exposure and risk of hearing damage among game players. This document acknowledges the diverse range of sound tracks game place tiles and of video game software titles as such developers are encouraged to consider the utilization of features listed below and include some or all of the following or additional ones as applicable. So the list from 9.3.1 on-wards is red light a list that lists out some of the features that can be considered, that should be considered by game developers title developers during the -- but depending what that game is they should include one or more of these features. But again we made this a nonmandatory recommendation. So we will stick with that.

We will move on to the features in a minute but before that any concerns with this? The way it is as now

under 9.3.

I don't see any hands. We have captioning until 5:30, right?

>> Yes.

>> So feature one is game audio output scaling. A video game's output should be scaled to a 30 minute integrated window should be scaled so that a 30 minute integrated window is measured at no higher than minus 23LUFS with a deviation of plus/minus 2LU. The true peak level shall not exceed -- should not exceed minus 1DB true peek.

Any comments? So here we have note as well about where these values are coming from so they are from different industry standards. So that is where these values have been picked up, not created by us.

Okay, any comment on this? Any concerns? We will keep moving.

9.3.2 feature two is dynamic range compression. Video game play software should include dynamic range -- sounds are loud to the game player and what sounds are at lowest levels of audibility based on the game player's own audio system.

This information is to be used to set the initial volume of the game title avoiding starting game at an uncomfortably loud level, a loud volume and raw calibrate a dynamic range mechanism which had could be used to limit sounds throughout game play.

Okay. Either everybody is tired or bored or completely in compliance. We should get the whole standard approved at this day.

Okay.

Any comment?

[PAUSE]

So dynamic rein setup is one and then dynamic range compression video game play software should include dynamic range compression often referred to as night mode and at this text which you see below has been moved from the definitions which is to say that this particular signal processing strategy can result in increased audibility of the entire dynamic range of a game sound track as lower levels. Hence it is -- it also being known as night mode allow for video game consumption late at night at low levels, at low volumes.

Brian, you're not happy with that I see.

- >> Yeah, the only thing I'm concerned about is where I realize these are should, not shalls.
 - >> It should be clear as to what it's trying to --
- >> Is that we're essentially trying to make a recommendation for something I don't think we have evidence that it actually leads to safer hearing. For example, dynamic range compression, the effect of it in

some kinds of games may be that the floor is brought up because there's maybe not a naturally as wide or dynamic range as there is in like a shooter game or something like that. So I think it's a good thing to have. I'm a little concerned that — but I'd feel a lot better if there was some research or user studies to say that given a wide population of players, it results in lower SPL levels delivered to the ear. I don't know how to put that into a couple sentences here.

>> Yeah, thanks. Thanks Brian.

Richard?

>> Yes, I think one aspect of this is if you are going into night mode your reckoning of dose, your estimation of dose and these two take account of that because as Brian has said, this is not one way or the other. Sometimes it's worse for hearing and sometimes better for safe hearing.

[PAUSE]

[PAUSE]

>> So is your recommendation then to reword this somehow or to remove it all together.

Richard?

>> I'm wondering.

>> Okay. No problem.

Dorothy and then Mark. And we can also give it thought overnight and come back to it in the morning.

>> I have to agree with Brian. If it's used in the way that it just boots the weaker sounds and doesn't make the player reduce the overall volume, then it's just adding insult to injury and just increasing energy in the exposure. So what we're assuming is that if we boost the weaker sounds then the player doesn't have to increase the overall level as much and I don't think that we have any evidence for this behavior.

>> Thank you, Dorothy.

Mark?

>> Yes, I'm also concerned about it because as you know both ATU and IC we were going away from only limiting max output towards controlling dose. One of the reasons is the war on compression where a lot of recordings and music is played at highly compressed range so the consequences that you push everything together and although you don't exceed a certain maximum level you get overall higher exposure. So or you add that this can be used to make softer sounds audible but the overall sound exposure should not be increased or whatever, then you need to add that. But I wonder, it's very difficult to find evidence on this. So dynamic range compression can be a curse as well if it's used in the wrong way. So yeah, I have some concerns on this one as well.

>> What I'm going to suggest is that we stop now

with eight minutes before time if it's okay and we come back to this again in the morning. We can think about it and if the overall sense is that this is not serving any purpose, is not based really on evidence, we can leave it out for sure. But let's put a pin on that for just this evening and come back to it in the morning with a fresh perspective.

So thank you, everybody, but, yeah, let us hear from Alita before we close.

- >> Well will this version be shared with us this evening just so we can see some of the edits or do you prefer just to use the previous one?
 - >> So that is -- sure.

You can share it. I will send it across. Yeah.

- >> Thank you.
- >> Sure. Okay. Then thank you, everybody. Those who have stayed online joining us very early in the morning or very late in the evening and also those who have -- who are here in person, thank you, everybody. We have, I think, gotten through most of it but we still have a lot to discuss tomorrow. Many points that we highlight for tomorrow and we will continue our review of this tomorrow.

Thank you and have a restful evening.

>> Yeah, just some logistics. We start again at 9:30 tomorrow. It will be more or less in the same physical space but half of it. I heard that they are going to split the rooms in two tomorrow. I don't know whether it's going to be K1 or K2. So just monitor for -- look for the familiar phases and then that will be the room.

Should actually be indicated on the screens in front of the door to get in.

Of course, for the remote participation there is no change for tomorrow. It's the same remote entry point to connect.

All right. Thank you and have a good rest and see you tomorrow. Thank you.