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

JANUARY 31, 2024
MORNING

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        >> CHAIR: Good morning, good evening, good very rate
at night and very early in the morning, thank you for
joining back today.
        8.3 relates to the volume control system and this is a
simple configurable volume control system. It is not
nothing unusual. With the requirement that this should be
set at a default level, which is savings which is at an
80-decibel, maximum of 80 decibels. So that should be
there. That's the consideration of this. Every device
should have configurable volume control system, which
should be set to the default safe listing levels.
        Any comments.
        Moving on from that to 8.4, it is about automatic
volume reduction for unsafe listening behavior which is
that a user will be provided with visual-based warnings
when unsafe listening is detected and this should be
followed by a Q4 action in which the user is offered the
choice to accept the risk of continued listeninger o
protect their hearing.
        The volume should be automatically reduced if the user

faced to ag acknowledge this notification or has selected
the option to protect their hearing when they're property
to do so.

Of course, here, so this was something which was
discussed also last time, that there should be -- this can
you for action should be provided. That is what is here,
and not much change from what was earlier said.

>> Sorry. It is -- it should be explicitly saying
that this is called for devices, and not sport wear.

>> The features we're discussing, the entire section 8
rerates to gaming device, not to solve to it.

>> Okay. Because in the previous point, 8. , they're
so far apart discussing software. So all of the Hass part
game should provide a disclaimer, thinker this makes this
point then a bit confusing.

I mean, 8.3.

Yeah. Yeah. I get what you're saying, that because
the safety fault game roll is set at levels that have to be
tested with the auto yo equipment, this is
actually -- yeah, a disyou claimer for the game. Yes, I
see why it is confusing point.   .

Anything else?

>> The 8.5 relates to audio device compensation or
headphone safety mode. This was in the software section
earlier and now also added to hardware which is that the
audio device compensation mode will be there in every
gaming hardware or console, and that a video game hardware,
the video game played device shall provide default
headphone safety mode which is well forward, it is planned
foo it it should automatically reduce the volume, because
obviously youthe headphone is based closer to the ear than
the loudspeakers and the risk -- the intensity levels, they
intend to be higher.

This is the recommendation here.

>> CHAIR: Karl.

>> Thank you. I'm wondering whether we could copy and
paste the proposal we have for section 9 into this place
which would replace all section 8, which I think is -- it
is very similar in some ways, but more discuss tint and
more clear.

>> You mean what had been said?

>> Yes. Yes.

>> So one of the points that we have here, it is about
the default part.

Surely we can review that text -- I don't know if you
want to review it now or --

>> Since had is a proposal, any change or rejection.

This is Document 3 from Sony and we have safe-listening features. So 9.1, dosimetry.

>> Yeah. I think this maps more, the same with new 8, right, in terms of content? Right?

>> CHAIR: Apart from this is focused on when the game device is connected to headphones or ear phones so that's quite important, this focuses on that, whereas WHO seems to only address that. In a certain continue.

If you highlight from 9 onwards, highlight the whole section 9 --

>> So -- yeah. The basic difference, one difference at least that's immediately there, it is that this is talking about -- that it only tracks when the headphone is plugged in, via vee tracking, even when a headphone is not plugged in, right. What is the exposure.

>> We're tracking what's coming from the speaker.

>> From the sound speaker. Let me ask Peter. Peter, do you have a comments on this?

>> Peter: We were hoping to some to some sort of a solution for a speaker setup. I guess this is much more frivolous than the headphones, if you go to version 1, there were concepts around tracking the levels of speaker system. Again, it is complicated but we sort of discussed that in the first draft. The question to Karl is, yes, your version is succinct and covers similar territory,'s specially with the updated version but what does Sony suggest for situations where gaming is experience the by our free-field loudspeaker system? Is that just not something we can focus on or come up with a solution for.

>> It's not something that I thought we were addressing on it. I thought we were just address forehead phones. I know it is mentioned in the first draft, but that's confusing me.

We don't talk about monitoring from the speaker, from anything, not from the 5, we don't talk about that. I'm not sure why we're doing it in this document, threes been no justification, there's no studies on what comes from speakers. There's no risk, no factors identified. I'm at a loss really of why we're trying to address this now.

>> So the concern, there is a gap in evidence for listening by a loudspeaker, whether that could be considered source of unsafe listening.

>> That is one part of it.

The other is also if -- how we see this in terms of the measurement respective, where he, we get your point.
.

Let's keep this point in for the moment while we did

back and look again at the data, see if we have that level of granularity available and again how do these two things, how they can be fitted in the same heading, let's say, or does it require something completely different in terms of dosimetry. Yes, we can go back, definitely look at the d I would maintain that in -- that for now, what Karl, the writer Karl has put in, but with the comment -- is it the background office.

     What I did for now, I pasted the section 9 from your document into Shelly's document. At the very end. I'm calling it alternative text from Doc3 so we have a reference. Easier to compare one to the another. We can -- we'll have a view of that.

     Is that okay?

     >> Is it your intention to go through that now or to -- what to do offline?

     >> We want you to go through the rest of the text and we will look at the data.

     >> Okay.

     >> Richard asked for the floor.

     >> Yes. I think I'm supporting the decision. The dosimetry associated with open speakers, et cetera, it is very different, it is very different approach to where you have got a nice controlled system, a close fitting headphones around the hoed.

     It is a very different situation. I think this conclusion is good.

     I would like to add that is the-up, WGO3, it is expand its area of coverage which will intrude gaming, which will eventual I didn't get to the 62638 in the ioc.

     The way that's going done, it is being constrained to close fitting listening devices. Again, avoiding the hope speaker situation. It is something that we can having control over or, you know, we have had a good chance of making that work that's all really. I think this decision is a good one.

     >> CHAIR: Thank you.

     Brian Brian (Speaker) I have a question on 8.5, not sure how it relates to the recommended text. For a feature that's a shall provide or required feature, what do we do in the case where it is perhaps not physically bossable to meet that? Forks, on the window PC, most situations, there is literally -- to you have no yeah of what's going on in the jackpot spot or a headphone, on a game counsel, when you plug the headset into a controller, there is, a very, very good chance that the player has plugged in a desktop. Someone with desktop speaker, they have not plugged the

speaker in, with speakers, there is no way to know. I'm
not sure how a device can meet a .5.
     >> Here, to clarify, and we had discussions during
definitions. Our intent in the standard is to provide
Myerly focus on those devices -- the purpose of them is to
create them, it is for gaming. Whether that's a gaming PC
if there is something which is created specifically for
gaming with person design card and whatever, whatever. Or
it is the consoles which are for gaming, when I say I don't
want to say the down dedicated, that I cans it completed,
of course, we do not intend to cover regular PCs, laptops,
so on this in this because that is -- unless they are
intended for gaming.
     >> I understand the distinction -- please. I
understand the distinction, not sure how that actually gets
made and even if that case, in a gaming PC, we don't brand
it like an alien wear PC, a desktop PC, using the same
headphone be jack, may go to the speaker, in that case, age
not sure how the testimony could determine that that the
headset was plugged in. UST, that's straightforward but
common use cases, analogue, speakers plugged into the
quarter inch output jacket and no way of knowing what that
device actually is.
     >> I was basically going to say that, no difference
between academia and PC, you know,.
     >> But if it is possible for a console to detect this,
why would it not be possible for a PC -- educate me -- end
intended for gaming services to protect? It? Maybe
fosteringable today but I didn't wouldn't $not be possible.
     >> Could be possible in the future, perhaps -- without
getting too much in the weeds, a only sole, you know, for
example, Xbox controller has a headset jack in it.
     It would be a very unusual use case for somebody to
plug external speakers in the controller. So the game
system can detect that, oh, something has been plugged into
that jack that's on the controller. We're confident it had
set. Mark is a positive, it is a heads set. On a PC,
there is simply you pow, one or more audio output Jackson,
design the to be use the by both speakers and headsets and
there is literally no way for analogue speakers or analogue
headsets to be distinguished from one another so really it
depends on what the end user is configuring. If the
desktop is in the desk, they have speakers plugged notch
that headset jack, then they're listening on speakers, the
same head chiropractor may have a said set in it and there
is no way for the system to know. It is a part of it it is
opaque, no mechanism to say this is a headset or it is a

speaker. UiSB had a different story, forecast wear the
system is able to determine it is a headset versus a
speaker than a .5 would come into play. USB headsets,
they're not the whole market of the headset, the standard
output is the analogue jack that you don't know what's
plugged into it.
     >> Right.
     >> CHAIR: We have Mark, remote.
     >> Mark: We see a move to more and Morehead phones
being autonomous navigationsed today, today they're
recognized an option. Typically what many will do if they
don't know which headset is connected, they can reserve to
have hyper safety, we have all of the interests to have a
headphone recognized by the system to have accurate
sections.
     The other is about the free-field part, I want to
raise pie hand at one point.
     On one hand, I think you have to be careful, if the
loudspeaker it's are not included, if you want to have no
warnings, what you do, you unplug the headset,
automatically go to the free form speakers and you can go
as loud as you want and nothing is wrong. I think it is a
danger. On the other hand, I think we need to be
realistic, I understand -- I don't agree that there is no
evidence that free-field loudspeakers can create harm. I
don't think that's the I have, the real I have is how to
exactly identify the loudness level at the ear. I think
that's the real issue today. There are options to to that,
yeah tonight we solve it by one hand making it mandatory if
you use a headphone, that's the way it is done in the
standard. Recommendation that if it is possible to measure
that, thaters it is evaluated until it shows clearly in the
text that we do consider the risk level of playing sounds
in free-field to allow speeder. It is something to take
into account. Of course, when possible. I guess it you
want to say it now, in kiss it is mandatory what, do you
control, there are possible options I agree with most of
you, it is not easy.
     I don't think it will help, that's fine,
evidence-based, sound driven by a loudspeaker apt -- they
have a risk factor. The issue is if you ask me on that
suicide, the issue is on the other side, how could you
control it or know exactly what the Lou level, dose you're
perceiving at that moment.
     >> I have a few points here. To the last one.
     We're identifying a potential risk, are we saying
we'll do there for all TVs? All streaming videos?   we

need to look at one area, identify that risk.

Going back to the PCs, as a total gaming industry that WHO provided, the PC part large. Very large when compared to consoles and I think if we just forgot that, that's a mistake. I think people connect via USB, with Bluetooth, with wireless phones. That's possible in the future hopefully, that -- I don't think it is correct that when a PC connects to a headphone, they don't know what it is at the end of it. That's the problem with the console, you could say, that when you con be next, unless it is a headphone that the console is aware of already it doesn't know the sensitivity and the characteristics of that headphone, you're in the same position.

As you are with a PC. If you are to use that argument.

I think we should include these aspects in this guidance document. And see how the future evolves, we're trying to address it.

Thank you.

>> Peter.

>> Just wanted to come back on a few points. With Brian's suggestion, there is no way of know, I have had a half Dunola Oladapo learn laptops and the current PC asks me what I plugged in to the October south coast, the PC being used now, what headphone, what size driver, they're absolutely is a mechanism for an almost connections with the jack and as Karl high school suggest, there is a Bluetooth connection coming under the use -- that may not be a -- may not be straight liable if all, the top ten or so were the last few years, various differences propertied me to just plug into that.

This is sort of a way to get there, just acknowledging what had been said, again, you had speakers, we may not have the specific gaming activity, but in the lead one to the background paper, what we're trying to achieve, there is research that suggests a person's preferred volume versus headphones, it a 2 death balance difference in the studies. I was able to find, sure, for testing it, watching television, listening to music, the small different may be a little bit less than when you listen to a loudspeaker, it still could tut it   -- it gaming for controllable activities, the 2-decibel difference could point out   children in that area of risk. I do except the point it is more difficult from the mention, from the point of view, to measure an account fume of loudness and finally, I just wanted to. 100% with the 1.1 billion gamers on PC system and we need to focus on those.

As well as the game on consoles, there is a lot -- is I think it is 600 million at the top of my had he, PC players, be need to focus on, not figure in some work that we are doing. Thank you.
>> All right.
Riched? Are you okay now?
>> Yes. I put my hand down because I was going to say, the one mechanism we have to let the system know what's plugged in, it is the user, the player, that was already covered by Peter.
>> Okay. Thank you.
Maybe we can sum up the hearing clause 8. If you can explain that, your recollection of the discussion.
>> 8.5 or put --
>> We had several points.
One, the general replacement of the whole section.
>> Yes. Yes.
>> So on, so who to expect for the next iteration.
The first part is about the hip phone, plugging in that phone, and whether we should -- whether the standard should only focus only sound delivered through headphone with the ground delivered in a free feel environment as well, and while there is pros and cons of each side and there is some data about the loudness, even in a Lee tier level and we recognize the point that ultimately, this also would's ply to other devices so why not televisions, radios, or whatever else? We need to reflect on that so that's why I you get and boo like to plain taken my suggestion that we keep this in for now, maybe welcome back to some of you for further discussions about this.
We take a decision next time, we keep it as a track change with the comment that for study, for discussion and then we can take a decision once we have a better back ground ourselves and information, if the sense that, of course, we have that, and checkly accrediting the concerns which have been raised and whether that means we should perhaps as mark said shift this to a recommendation, sort of a lower category recommendation, that yes, it is with headphones, they shall this that Tom option, the three field sound is heard, the device should try to capture this and assess the exposure acoring will he or make it something like that and propose wording accordingly or to keep it as such. These are the three options. Keep it at we have say. Keep it as Karl has said, or to come together in between. Makes sense.
Regarding the -- regarding the headphone safety mode and its applicability to P Cs, so on, again, we would like

to maintain it as this. And for sure we can come back to some of you and look at or do a bit more of research about why and in which situation can this not be possible so maybe make those scenarios where this may not be applicable.

does that sound okay to everybody as a way forward.

Any comments online?

>> Nothing.

>> So shall we -- look, this was the last point in section 8 relating to hardware. If there is any further comment regarding hardware or the gaming device, we should discuss it now, otherwise we move on to software features.

You (speaking off microphone).

You said we go to clause 9 now? Yes, Karl?

>> Sorry, just to -- you have dropped in the cut and paste from Document 3, have you? That's great. Thank you.

>> it is there, at the very end of the document I didn't try to meteorologist pause it would be complicated. I wasting you were dropping in at the end of the session that we were skiing. Were you want.

Yeah. There will visual difficulties, I don't know -- (Speaking French).

>> My preference is at the enof that section, that's where it is applicable. Thank you.

The section number was changed, what was 9 became 10. I did that with track mode so that it explains it. I put it in purple so that it is a clear we don't use in development. It is clear in case we move things around, where it came from. Okay.

Then going to the new 10.

>> SHELLY CHADHA: Right. So safe listening for video game play software is what is on your screens, on this screen as 10, and was in the document number 9. The submission by WHO was number 9. This relates to the video game software title, so the game which is being played, and as I mentioned yesterday, the three reasons already elaborated upon yesterday we feel that this despite the hesitation from others needs to be maintained because it is required, it is requested, and it is also possible.

First is here on 10.1 on the screen here. There is safe listening warnings and notifications, that the video game shall routinely provide in-game warnings on notifications to gamers regarding auditor risks associated with video game play and these will be provided within the gameplay experience and we've mentioned also, lower down, the concern was that it was too intrusive, will destroy the gameplay experience, it is, that it should be done in a way

that does not untried, you don't want it in the filled of a
heavy battle or something, but maybe at the end I could of
that. What it should include, it is at the initial game
load screen -- at the initial loading and prior to the
first gameplay, there should be a warning about safe
listening and unsafe -- and that video gameplaying with
loud livables, it could be uncomfortable with unsafe
listenaling. The concern was raised last final this being
valued realistically and if this concerns, I have asked
Peter some slides which show with a is right at the start.
The different types of screens. Of course, this is another
one of those screens there we're asking. But we don't
think it is unreasonable gibbon that they're playing loud
sounds, it supposes a huge risk of a permanent impairment
that's explodely avoidable.

       So let us know if you could like o have you share
those screens.

       So that is at the dish load screen and then after acor
a period of Kentucky gameplay and here it can be during a
convenient, a game break, for example, or farm, when a fame
was intended or after using the live for this person pauses
game, then the notification can come go saying that your
years have been exposed, for example, to two hours of sound
and those offers, so.

       Lastly, at the end of gameplay, when the player -- go
ahead.

       Sorry.

       Is this in addition to the hardware requirements?
Recommend a with it -- if you could clarify that.

       >> YANN PITROU: Yes. Yes. These are requirements for
software now, recognizing there software or gym titles are
produced independently of the hardware.

       If you go down the compliance, the compliant, it can
automatically be compliant with the requirements if it
includes these requirements. So if you're playing a game,
you'll get warnings from the hardware and you'll get
warnings from the solve wear senior.

       Yeah.

       >> So, of course, that comes to the implementation
part widow not elaborate upon. But ultimately, it is that
the two need to also communicate with one another so that
user is not getting warnings like from every side, coming
in all the same, of course.

       Peter?

       >> Peter -- it is a slight distinction, the warnings
from the hardware systems will be based on this, if they
allow with allowance, then they get a warning associated

with that, the warnings associated here are part of
generality health and comparable to other warnings that are
commonplace. The hardware will be associated to sound, an
actual, mush rabble disk the warning foe us you cussed on
right now for a general hearing health awareness perfect.
     Er.
     >> That.
     >> SHELLY CHADHA: It is in the samples, that's been
removed from the terrific but we can make it clear that it
is not based on Dow,.
     >> You may want to consider language to clarify that.
I don't know if in the scope, in clause 6 somewhere that
has the overview of the document, it choosey --
     >> Well, no? I think -- a feeling that I could have,
so clash of the warnings, things like that and this innings
are haywire, no good coordination between the operating
system level and guidance, the sweir provider, with they're
dork yeah. He think it nodes ton to be clear.
     >> Sorry. Do I understand correctly that the language
will mention the software and the hardware somehow, needs
to communicate on this topic or --
     >> I'm note saying that. I'm not saying this.
     We want to shake that you are if you could have a
overlap of responsibilities, then you need to have some
coordination. Right, somehow that needs to be coordinated,
could be active coordination or development time that you
know what -- if you're developing for a console, you know
what console you work and do the electric part, that be is
safe. A food project manage., this is going through
communication process between hardware and software, these
more complicated. I think what we need to make sure is
that the dupe Cade, that word is not coming up, density
is -- let's say,.
     >> WAHYUDI HASBI: For the developer so a lot of it
doesn't happen. How it happens, on I were compensation be
on the scope and of standard is with a I think.
     Okay.
     >> I'm -- I'm here to play devil's advocate here. I
finded.1.2 very inclusive and developers generally would,
the Nallcy is hey, if you're windchilling Saving Private
Ryan, I would pause the Povy after the initial team and
watch the Povy windchill ever you were just expelsed to a
loud sounds, do you want to a -- you can continue with
thest rest of the movie.
     >> I think that another challenge is that went talking
about trying to make requirements in software, I know we
don't want to pre describe details the details are sort of

the safe harbor that a software developmenter would know
that they were actually in plights plies. That was -- I
get the desire to sort of be fussy, but as a software
developer, how do I know if I'm notifying frequently enough
or if I will be fine because I'm not notifying frequently
enough. I think that's a really challenge.
        >> Sorry, so I see two points in what you just said.
One, it is that 9.1.2, it is too sprucish. That is first
point.   but what you say over there was it would faussett
film offer whatever you're doing on that software, but
that's not what it is saying. It is saying when you poz it
then that comes in, right. Not that we should be pussing
the game to say oh, you have done two hours or one hour,
whatever it is.
        Rather to say -- then you pause, you take a pause in
the game, you lost a life, you won a goal, whatever, then
while -- you know, that comes on the screen, that you have
been exposing yourself to over two hours of sounds. Do you
want to take a break, something like that.
        >> I get that, I get it as it is written, there is a
difference between a user saying I'm actually going to
pause the game, pause my experience, and, you know, after
completing a level, which maybe that's -- I just finished a
big boss, going right to the next thing, operation of the
narrative that is not at the best of the user. I think
that the user part of game is a bit of a different scenario
than just saying at the end of a round of great many, which
is a little harder to quantify, or after completing a
level.
        >> I would suggest to change break with moment. It is
something that's designed by the developer. This is good
moment to display such a warning, rather than force it to
be in a break. I mean, then it could be a break.
        >> A moment?
        >> So mark has a comment.
        >> And Peter, if you would like to add anything as
well, please.
        >> No. I think -- I guess we need to be careful
about, if pureed the text now, it feels kind of aggressive,
about warnings, negative stuff, whatever. Well, what I
think we want to create, is that if developers create a
safe listening game, right, there will be positive
messages, if you have that mode, then you have a different
mode for sensitive users and then you all thely lower the
risk of the the loud sounds during the game. I can't
imagine that game developers are not that happy about the
fact that you need to loss harsh wording at some point.

I think that we need to turn it into somewhat more of a positive story. I don't have an issue with the content, I understand the logic being done. Understand that for the game developer, there is different modes to ensure that if you use that mode that then the higher picks will be out, that you will lose sound. As I have seen in some examples that were already in the presentation, the document now. I think it is quite positive.

Babies you want to get the game developers on board, we don't want to scare them away by doing this. I do understand, please correct me if I'm wrong, that on the one hand, if you comply as a game hardware to this, you can check compliance on the hardware, they'll be compliant to this document or standard or whatever.

If you develop a game, then I can show that the game is compliant to these safety standards and you can use it also of an argument next to other health features I would imagine. Is that a correct way of seeing things?

>> Yes, Mark. I would say it is so.

>> CHAIR: Yes Peter.

>> To echo I guess what Brian is saying. Yes, absolutely, we don't want to interrupt during pivotal moments and if leveling up is one of the pivotal moments, we may be at convenient points to place that in. Just to explain the strategy here, we were wanting before, during, at the end because we need to remember that hearing damage is invisible, if you have a repet active strain injury because of the way that you hold the control, that will hurt, symptom stop you from playing, take a break. If the eyes are strained, you'll notice that and hearing is a challenging one, especially forayinger populations where maybe the early hint that some sort of damage has occurred is some tinnitus at the end of the round, a fullness, the ears are seeming fatigued. That's the strategy, we want to sort of have three options to I guess raise the potential issue of hearing loss or hearing damage during gameplay. I 100% agree with you, we don't want to interrupt, we want to choose and to have the developer choose the most convenient, non-emerging part of the game to do so. If that means completing a level should be removed as a suggestion, so be in some games, completing a level is just fine. I would use the example that comes to mind for me with W ism., at various periods, even during, you know, a round or as a round finishes mini golf, whatever you're play, a visual comes up recommending that you take a break. Again, that's an example of something that's been done, and it was particularly effective. That's what we're trying to

imlit here with this suggestion in the middle of the mid part of the game or session.

Karl?

>> Yeah. So I'm counting the notifications up. So -- it is not difficult. You have three in the hardware.

Three in the software, potentially. If you play one game, one hour, you get 6 notifications on safe listening.

Is that correct? Yeah. Let me just look at the hardware.

>> CHAIR: While Shelly thinks, you want to say something.

I forget what I was going to say.

>> As also with the end of gameplay, I struggle to see how this could be implemented at all in most cases. I mean, if you're playing, for example, with a handheld or you have gone through a safe zone, you turn over the button, you don't have an end screen, an end really, if you're playing a narrative game, the end of the game, you ever the ten minutes of music plus the credits, after the credits, I mean, you need -- you have the warning.

I don't know see how it can be implemented.

>> Firstly, to answer in that question. In the hardware, what we're asking for, we're asking for the initial load. When the game is loaded, there is a warning, it is kind of repeated.

And then at the end as well.

And here what we have, other than that, it is realtime notification using in-game notification systems which will only come in if you're exceeding your sound dose. That's only coming in if you're actually exceeding the levels. Yes. It is right, a lot of notifications are coming in. I want to ask opinions on this as well. Also an opinion from all of you to say how can -- how can this -- so the intent is clear. We want to notify the person that playing this game at a loud volume can cause hearing damage. Number one.

Number two, be if they have played for a long time, we want to remind them not aggressively, but we want to remind them that by playing continuously they could put their hearing at risk, would they like to take a break. This again, it should come in a way that is -- that is not intrusive, that doesn't kind of interrupter the gym play, so on, so forth.

Lastly, at the end of it, we want to tell them how much sound they have consumed or how much -- and remind them, you know, you can check their hearing, if they have any problem, they should do this.

The reason why we have these kind of repeated, it is because all hardware may not always play games, that also provides these messages, the notifications, let's say, and all software or game titles may not be played on systems that provide this information that have those dosimetry. So can we put a clause there to say that the two should communicate with each other so that wherever possible the two should communicate, even with each other, so that these notifications are delivered in a manner in which is conducive to game plaining and the players experience or this is not on -- this is not reasonable ask, yeah. That's the sense I'm getting.

It is a question.

Nikoli, if you have comments.

May, the main comment would be that I think this -- the last suggestion, I mean, from a very receipt tore yal perspective, it is very important. You don't notify people several times about the same things.

Also, what I was thinking, I think you feed to be ready really carefully in the amount of information you give, then people just dismiss it. I'm thinking comparing to iPhone or an other device, when listening to music, you get a notification, I think it is much easier to look at it. You're not in such a complex environment like, you know, video game, you probably have many more things going on on your screen. I think maybe -- my main point is that it is really important that you ensurer that it is unsafe, that people get there, something saying listen to what you did in the last time, it was unsafe, and maybe you can take a break. We have to do something. Not to overwhelm people with information, especially when they're not doing anything that's not safe. Maybe in the begin, a warning, you can say something, not to continue.

Also, another comment about something that was said before about the positive versus negative framing.

Here it is important to make a distinction between what is in the standards. So o do we want to have something that sounds negative or to approve the game developers, is on.

I believe there may be -- it should be framed positively.

To make shirr that within the actual messaging that people, that users get, it is really important to have the combination of both sides.

More positive, negative framing, we know people react to different people to different things. What may work for someone may not work for someone else. I think it should

stay.

I agree that maybe in the standard, the old framing, it is more like this, you can help people listen safely and not really stressing the risk or negative sides.

>> A challenge here, we may start running into fundamental differences between a PC environment and a console environment. In a console environment it is possible to when you start a game, you have a could be sole, a warning in front of every game as it starts up in which case the game itself then, putting the same text on the screen, would appear very redoundn't, but that may be harder on a PC -- not impossible, but I think it may be more challenging, windows how now has to know whether the application you're start something a game or not. You don't want to put the warning up when somebody starts excel or something obviously.

>> (Chuckle).

In that case we're leaning to get products like steam, Val, the biggest sort of published -- you know, disdistributor on games in PC, they hey be able to do something akin to a system warning. Reducing the redundant information, otherwise as users we consider it noise,. Start to tune it out.

Ing as European indicated, in the PC world, multiple warnings in the game software is more important. I guess the challenge for the standard is just to be able to balance those two realms of game planning.

>> Yes. Talking again about 9.1.2 I'm wondering if maybe -- if this can be mitigated by -- you know, if there are certain circumstances that worker necessary Saturday a notification come up, the person playing for two hours non-stop, I don't think that's what it says there.

>> It talk was two hours of sound dosage, you were not allowed 40 hours a week, here you talk   the two hours of sound dosage, not two hours playing, they could play loud and play 10 minutes.

>> I agree. Rather than a extend, you must put up messages, you must put up messages as you approach a high daily dose or something like that.

>> That is because dosimetry is a great thing at the level of the hardware, not at the software level. That is where those notifications have to come from.   the software, it is not empowered to ades your toesage.

>> I could envision a system where if there is truly required, you know, where a game could have at opportune moments check the system, hey, PlayStation, what's the dosage? Well, the person who had the sound muted,

therefore you tonight have to worry about a warning at you a. Oh, they have been playing with what, we can tell, excess Cybersecurity loud levels and so maybe even giving PlayStation there. Again, it is as a software developer, it is noise to have a safe harbor provision. How do I pow that I'm meeting this spec.

>> I give that point of yours that what would compliance look like.

First, we can -- I think it is the two, they are very much row late how they implemented, how we would test then the compliance.

Here let me just come back for a minute to talk again about these PC, non-PC games. I'm just wondering, because as long as the game is being played on a machine, a machine, console, whatever, on hardware, that that has dosimetry and the capacity to inform person of its use, when they are exceeding the sound level and so on or about to exceed it. Also to do automatic volume restriction, all is good. We don't need this. This comes in where we don't have the option. Now, again, the reason we want to maintain it, because our consoles would not comply, secondly, in various PC requirements, we don't have control with the homemade PCs, et cetera, et cetera, we didn't have that control.

Is it possible to sense that PC non-controlled environment, it is the one concern. Secondly, consoles which could not comply, leaving out consoles that don't comply for the moment, can we say that all games intended to be played on PC should include this? So that this kind of applies to games developed specifically for being played over computers rather than consoles.

>> I think that's a very interesting notion. I won ger if we can phrase it in a different way, rather than making that PC, console distinction which we're trying to avoid if possible, if it were something aligned with competence in the dosimetry information. Ana, you know, on a PC we effectively are not confident because of the wild list nature of it. Console, we may have a console that's not yet implemented dose Tom, we may not know, we may have a council that's had that adopted and we don't know again. It may be a way of making the distinction without -- based on the feature of the device rather than it is a windows, a console.

Do you see the software configuration as a temporary life boat until the devices are fully -- let's say it is five years from now. The devices have this -- would some of this software, the specifications be able to be scaled

back? Is it something that you think is just necessary
even if the devices themselves were sort of robust
dosimetry devices?
        >> Definitely, the notifications and all could be
scaled back. Going through this, we also see the volume
channel controls and so on, the safer listening mode, which
we think should exist independent of the hardware.
        You look like you want to say something.
        (Out of microphone).
        >> I think we're exhausted already at this point. We
can I guess maybe you can make your point or I don't know
exactly, I think we were talking about the end of the
gameplay. Right.
        So we would move to volume channel controls. I don't
know -- yeah.
        >> Yeah. That system, very difficult implementation
of end of gameplay notifications. Very, very difficult.
Okay. So we feed to have that. This is more like a
personal comment. Of course, we have not had the
opportunity to discuss with the members on this draft.
Very general high-level comments I'm pretty sure that the
industry will maker the first, if it is not in the draft,
but if it makes the draft, any o feature that involves
communicating between the software and the hardware can
make compliance are extremely more difficult. Dreamily
more difficult. That's point number 1.
        Point number 2, some of the -- I mean, I'm quite sure
that we are going for war, we may propose a less
aggressive, pointing out fingers, messaging, such as the
matter of details like I see in the beginning, that -- one
second. That says, forks, the initial screen, that video
games can be a source of unsafe listening and I'm quite
sure that they understood that they would rather have
something listening to loud noises, which can be --ky with
impact your health listening.
        I mean, singling out video games versus other products
that have been mentioned, movies, videos, et cetera, it is
a bit unfair.
        >> Thank you.
        So first -- yeah. Both your points are well accepted.
Firstly to word it in a way that so that to not word it
that this is a source of, but maybe simply to say that
listening to sounds at high volumes will put your hearing
a, put you at risk of permanent damage, something like
that. So that it applies really to all sound sources.
As -- not just to gaming. Agreed, we don't want to do that
also put that. Absolutely agree with that, we can make the

framing a bit gentler.

Secondly, about the communication between hardware and software, how that would affect the compliance.

I understand what you're saying. Now, what we're trying to find is a vows, where we can have, for a lot of people that would continue to play on devices that are not equipped with safe listening features what is the way to provide them safe listening options, and information.

So a is the let's say the challenge that we're trying to address.

We note your concerns, what we're looking for are the solutions for how we can make this happen better and understanding that, okay, the communication between hardware and software especially if they're not off let's say the same manufacturer or so on, it will be a huge challenge. Understanding that, what is -- so maybe a possible wave would be to make that not as a shall requirement but to say that this is an ideal situation, that the two should communicate with each other. At the same time, what we could do, reducing the overall notification requirements so that there are not quite so many if somebody is playing a compliant game on a compliant device. That's the -- that is the player who is let's say -- an ideal player playing a compliance software on a compliant device, but should not be overwhelmed with notifications.

Understanding that, let us also juster thinking also of what you said, that somebody would just switch it off, not really exit the game, there is no exit screen there, so what is -- so maybe that is not going to be so useful.

Let us reflect on that, and propose a solution in the next version. Is that okay? Yeah. Please.

>> I promise this is my last comment on this.

>> We're happy to have comments.

The reason it sticks so much, it is that for 10.1.1 there is an existing metaphor there, you know, game starts, stop, the come logo, software logos, and with the game ending, it has credits with additional logos of tech used by the game. 10.1.2, I can't think of an existing gameplay experience that is 10.1.2. I think that makes it very challenging to implement and to get the industry behind. So just something to keep in mind as you're thinking, you know, I would -- I would recommendation, request, whatever the 9.1.2 not be a shell, but maybe be a more or could or a should.

Peter, any reflection on that?

>> Just repeating what I said earlier, with regards to

the Wii, which with a pop-up a message to go have a break various stages. The other comment I would make is we're talking about end of gameplay. That's probably when a person finishes gaming PlayStation for that particular day or time, not necessarily the end, I finished the game, the credits are rolling, let's put a rolling on safe listening then.

We're focusing on the specific game PlayStation so the two comments I would make. But also. When I stop a game, you see the menu options to configure, change. I'm not awar ever any specific messaging that comes up but happy to reduce that, and they they research common Kays down.

>> Thank you, Peter.

Is the WI message that's put up by the system, right? That's not put up by the software title? Is that put by the software title?

>> It was from the Wii sport game toilet.

>> Within the (Title) itself. Yes.

>> It was an old game, 2006 and it definitely came over, some on the part examples of -- I forge the name of the operation. They connect, I think. I think there was some examples of that, more based on sensor based play, nevertheless, it was an example of take your break for wealth and wellbeing and it was coming up, not necessarily triggered which the gaming player but it did come up.

I would loving to get the data on that. I'll include those examples in my GDC talk.

>> Great. Okay.

>> I don't want to go back to the discussion of definition again.

>> Please don't.

>> I was wondering, because Simone had suggested a break, what was it, a different word, you go suggested rather than break?

>> It is a moment.

>> MASAHITO KAWAMORI: Games are usually structured in such a way that you have stages, right -- no? No, dhow you program? I mean, you have to have some kind of structure in the game, right? I have ¶

, if you have a tree structure, you go to that because you have a line --

>> Yes. There are -- there are -- I mean, hundreds of temperature or thousands name of of of games we have seen, every game if completely different. Think we somehow many people are still having this image of video games of the 80s that were very much in that way because of the machines at the time, they were very limited and you need to program

in a certain way, the step by step, but if our playing a game, like a narrative became, you know, I mean, you have -- the narrative is completely continuing and I won't point fingers, you don't have any pauses for loaning new parts of the game. It is a continue experience? How do you finish? You reach rich point, a game end of the game, then maybe you turn off the game? That's it.

>> There are two points ride, right, you pause or stop the great many you don't necessarily -- you're posting can be.

You can't indefinitely lay the game.

>> There are some games that don't eyra posting there.

Are games that even don't allow posting from not talking about -- you have to stop the game.

>> You can adjust.

And turn off the game.

But you have -- the game, they're in pray -- no, the game is not indefinite. Correct.

>> There has to be an end to this.

>> Okay. Beyond what -- can you make -- can you -- no. I mean, you can't live forever. That means you have to you stop somewhere. Human beings -- that's a discussion for the coffee break.

All right.

>> Is there a coffee break?

>> Yes. We discussed whether to have it or not, we'll see what Karl will say if you can help and --

>> With the time of the coffee break or.

No. No. You raised your hand before. If you want a coffee break, that's welcome.

Yes.

>> A question and then I have got a comment afterwards.

Have you spoken to many game developers.

>> Yes. Peter has been speaking to them for the last year.

Game sound developers as well. Peter, you can elaborate, those are some of the research that's summarized in the background paper that we published, presented in June, published later. Peter can explain better.

>> I'm not going to pretend to have the same amount of context or conversations that someone like Brian will say. I guess we have consulted with name risk factors game designers of various sizes to obtain some of the strategies and concepts as well the gamers themselves.

For example, the original idea for the end of game warning was triggered which an early conversation I had

with an amateur East Coast professional that wanted to be
reminded at the end of the game, hey, my ears are in the
right reign, it was a suggestion based on that r there was
conversations subsequently with game developers.
    >> JULIA NIBLETT: I will be very useful to have the
presence first effort discussions. In particular talking
about the game developers that you are talking to.
    My suggestion, for our input, is that we could have a
quick win here with sort of low hanging fruit in that it is
important to have points the soft wire, give the warning
that -- Joan the first part of the game, you can have a
potential risk to hearing, providing examples of systems to
be aware of. I think there you would get a lot of cames
wanting to be compliant with the standard. It is a quick
win, can be done, it is not controversial.
    And also I think that this -- a lot of good
information in the rest of the WHO input, but it is -- the
problem is, do you you test implement it. I think for
that, it would make more sense if we have that in an
informed an folks so that game developers could rook at it,
and not in a compliance way. Not a must. Leave it to
their discretion as to whether to improve it or not. That
would be my problem.
    >> I mean for the exit warning or you're talking
about -- no.
    >> For all -- we haven't discussed theiest of it yet,
babe it is premature, anything apart from the warning
that's given by the software it is a warning, a statement,
which is one of the recommendations here, but everything
after that, it would be in an annex and give game
developers the option to include that and I think you get a
lot of buy in from the visit initially by repeating the
standard, by including this statement, the rest would be.
    That's may suggestion.
    >> Yeah. I know we don't want to be too prescriptive
with the range. I wondered if you considered educating the
user about the environment at a they're traying to play in.
I suspect a they're turning the volume up because a lot of
regular players are trying to do o this and other noise
going on, you know, music in the background, something
that's not part of the gaming system. It is how you
may -- just something to consider.
    >> Peter's example about -- the suggestion of putting
up warning after a game was suggested, and by first player,
it shows how he the esports experience can't be translated
to the overwhelming part of the video games consumption and
a problem with terminology. What that player was say, they

wanted a warning after a much   -- match. The game for
him, if -- well, I'm sur it is a male. It is man. I don't
what it comes from. He was playing, then he finishes a
much at the end of the March, once a warning, but it is not
at the end of the game, then he swishes off the computer,
that's it. There is not like there is any screen saying
hey, the game is fishing, it does not happen for most
cases. Here I think that the suggestion comes from a very
specific video game pray experience that is not translated
to the mozos, importance as a user.

        >> Two comments. First, I want to pair grave Karl to
make sure I understand what he was saying, are you saying,
Karl, that 10.1.1 initially load screen, that's mandatory
from and that -- basically that the rest of between be
recommended Peter becauses you a say it is a quick, easy
win that pep can get be heaped a a step one, is that -- yes
p basically that's what I'm saying. I didn't have to be
the initial load screen, obviously did it at some point,
that's basically it. Yes.

        The comments made by the -- I think this is a
scenario where I think that maybe the intent is that after
a long game PlayStation it is more likely to be damaging
even without dosimetry, things are not implemented, beck
say hey, you played for four yours on your way out. If
possible, we'll remind you again that -- I I even with the
non-eSport participants, that's a common scenario, an avid
gamer plays, you know, four hours recreationally or last of
us, something, you know, a reminder on the way out. I
don't think I would worry too much about the scenario is
where I played, I finished, turned off the switch,
therefore I don't get the warning fought occasion. We
can't force you to show screens when the power is off on
the device. I wouldn't worry about that so much.

        >> Note in the software, on the device.

        I mean, the things I'm saying, it is that if it is
mandatory implementation of that, I mean, can be extremely
complicated.

        >> That can be addressed by putting in the mandatory
that in the devices switched off suddenly or something --

        >> I want to clarify something before we go on.

        First of all, we do not define hand tore or not at
this stage. Okay. First of all.

        Also, for consider's point, and Brian's point, Karl
was suggesting that we put this into appendix, rather than
the pain Doddy of the continuation, right in is this means
this is not in the normative session of this
recommendation, that meansen a an informative session, not

part of the recommendation at all.

That was Karl's suggestion. It isn't. Totally difference from recommended or optional requirement.

Whether it is mandatory or not, we can skies rarity on O we have to fine the requirements and then we have to denine that requirement should be a mandatory thing, that sudden be implemented or not. It is just you geted how many just recommendation for a future use and so on. Or is it just an informative secommendation, just information, you don't need to care about it, it is just information, you take it into account later on if you're interested, so on. It is a dinner level, it is dinner requirements. I don't think it is good to discuss whether it is mandatory or not. We can clarify the requirements. Then we can go on. Then to discuss whether that should be implemented or not. It could be just a recommendation, could be just an inform tissue suggestion, could be just an option thing that implementer can decide to do if they decide it is a good thing to add.

>> That's not how the document is worthed now, so what Masahito Kawamori is saying, clearly what the requirements are, then later on come back. Maybe this is a different way of structuring the document. It could be seen as that approach. I just had seen Peter raising a hand. Don't know if he wants to say something?

>> PASI TOIVONEN: I was just a quick comment on the conversation I had with the ace bullets -- will is more context to his suggestion, he's a coach, works with young children and designed with accessibility design and game, he said this is the best way for the market, the younger market, perhaps it is a key system that can be attribute for that right. I continued the assumption he was talking about, he was actually talking about the gaming experience and at the end of an actual PlayStation as opposed to the understand of the natural, competitive situation. I wanted to make that small comment and there is something wnted to say but it has been taken care of.

All right. Let's go back to this other point.   yes.

>> In the past experience, it is mandatory requirements that get implemented, spot much the auction ones.

Also that required the most discussion because so, yeah, we have structured, Masahito Kawamori, the document in such a way that we already kind of say with a is mandatory and what is an option.

>> Maybe the approach would be, let's focus on the what the requirement is, then later we can review, discuss,

what is manned deer or not mandatory. Let's say we have a
hint of what WHO thinks, it should be, with the language we
have there, and focus at this point, the discussion on
whether or not the what's going asked, you ask if it is
clear, then we can later discuss whether things are
mandatory optional or suggested, something like that. Just
to keep with the review of the document.
     >> Again, good idea.
     What we should also do, bear in mind, that when we're
putting these mandatory requirements in, or at least
have -- some people have a view it should be mandatory,
that with that, they have how it is going to be tested,
required to it. You don't have the requirement and how it
will be tested. There is no point in having it. It will
be just informative.
     >> That's a good point, if you require something,
either mandatory or optional, you need to have a way
of -- the requirement, it has to be testable.
     If someone is going to claim that, somewhere in the
future, they need to have a way of showing that you comply.
     Whatever the nature.   Required, optional, suggested.
     >> Thank you.
     >> Slightly yes from formative, if you just form five,
ten you won't necessarily have to have a wave of testing I
guess, just giving guidance on how it could be done.
     >> We have published a technical paper on compliance,
what we could already do, in parallel with this, with this
discussion, put the way we develop for that, like a table
which lists out the features, first the mandatory and then
the optional requirements and the kind of recommendations.
Then it is how we test it and what is defeated in the
compliance, those are three sections of what we could do,
it is all right to kind of prepare that. We have kind
of -- it helps us to also think, okay, if this is going to
be there, how is it going to be tested, and what does
compliance look like? So if we say continuous gameplays,
that are of value, we want to put there, what is it that is
going to be kind of -- how would somebody tell me that this
is compliance? We get the point.   maybe we can develop
that into parallel and for the next workshop/meeting, we
can submit it along with the regular submissions. It
becomes clearer and maybe can guide the discussion better.
     >> All right. Just call your attention to where we
are. The goal was to review the whole document. We have
one hour and a half left. If we don't break for a coffee.
     Just to see where we are. So we are in -- going to
review 10.2, volume channel control. And we still have,

you know, safe, safer listening mode, and then issues with
the game master with different levels. All of the device
compensation, option to remove actors and sounds, and text
or based warnings. Something about keeping a iPhone
register in and features for live vent -- sorry about that.
     Then there are the appendixes. I think we should -- I
agree in a way, that we can more effectively use this time,
either -- you know, we can continue to reviewing in detail,
and then stop or we have to stop and then the other parts,
we may -- that are under review, very strange, or we do a
more high-level review at this point.   I don't know how
people would like to -- yes?
     >> So from WHO perspective, to be able to
constructively move things forward, we would like to finish
reviewing as far as possible the software requirements,
that's current section 10. We would like to review this
and for the rester, it is okay, we can come back to them
next time. Also get feedback from you all offline if
that's all right. I think for the software, that's the
most critical and contention part, and we would like to
finish that today.
     I'm optimistic.
     >> Yes, Karl?
     >> Just a request for a 10-minute break, squeeze that
in as well. That would be great.
     >> Okay. So let's do that. We have a very short
break, ten minutes.
      we can come back at 11:15.
     >> MASAHITO KAWAMORI: We're still waiting for some
people to come back. We'll start in about 5 minutes I
hope.
     >> Let's resume. We have taken 7 minutes, longer than
planned. Karl, would you like to have another break?
     >> I would. Yeah.
     This document that we're drafting now, what will
happen to it? Depending on the answer, I'll follow-up with
another question or a request. So if it is just to going
to be given to WHO, they're going to take it away, look at
it, or is it going to be publicly available, is it just for
the members around on this call, here, that's why question.
     , my suggestion is that whatever you get by 12:30 or
so, we report it in the afternoon session of Question 28, I
think we could issue this version updated with these
comments, knowing that it is going to be evolved. And for
WHO to work on, continue the consultations as Peter and
Shelly have been doing and coming with a revised proposal
for the April meet, April I suppose they're meeting next,

right? No? That should be -- I think it is necessary,
sort of a new baseline for people to make comments,
specific comments on not to happen, what happened to you,
they're using one version or substantially.
        Okay. So it won't be publicly available on the
workshop website?
        >> CHAIR: The version today, I could make available
for the RGM, for this afternoon as notated, that's not a
mod vied version, not finalized version.
        >> Unto you to decide.
        >> My decision with a be not publicly available, if it
is, I would like to make changes --
        >> Maybe for -- if it is not --
        >> Then we'll look at it this afternoon.
        >> Yes. Okay. It is within ITU-T if it is just for
the members.
        >> And in WHO, unless there is a specific, as part of
the process, we want to do the mandate, a public
consultation, a period dedicated that we don't usually make
drafts of Documents available online for anyone to comment
on. It needs to be done in a structured way, we otherwise
wouldn't be able to handle the comments and the variety of
comments. We don't usually do public --
        >> This document is, the document you put to the
workshop obviously is --
        >> It is available for members. Right.
Because of the workshop --
        >> I'm sorry.
        >> Because of -- this document, it is a copy of it
that is public, available to everyone from the website.
        >> Otherwise people here, many people here would not
be able to access it. It is kind of complicated, but it is
the structures that are made in such a way, the workshop
itself is open, but the comments and the output from the
workshop is restricted.
        >> I think that they'll say how do I consult the
members without that version.
        >> Almost.
        >> Almost.
        >> If you have the dates in April, if you can let us
know as quickly as possible, we can lock it in, to your
comment, if we could possibly have the draft 2, 3 weeks
before, that's great, we can consult all members.
        >> So how did, the meeting in April will be a formal
one, the one we're having, more informally structured. For
that meeting, did all of the proposals, they must be aimed,
submitted and available on the website, 12 calendar days

before the start of the meeting, which is 15 April. So it
is going to be available beginning of April on the website.
Doesn't fit exactly or have the three weeks requirement.
Maybe what we could ask WHO is to submit earlier than that
deadline, that's the deadline, it could be available
before. That could be also circulated to some
stakeholders, because the documents for this formal
meeting, they're closed, only for members.

     So you need to have an exception made for making it
available to you specifically.

     >> In that meeting, would we have space for this kind
of discussion?

     >> You could have invited experts attending.

     >> Yes. How much time would we have?

     >> Normally we have half a day. But this is for us to
schedule.

     >> SHELLY CHADHA: Because ultimately, I think we need
more than half a day to again go through the documents and
things. That's why I'm wondering if either we do another
workshop, I was going to suggest even three days instead of
two, so that we can actually thrash everything out. Okay.
At least two days. I think we need that to be able to take
this to a stage to look at it this year.

     >> Yeah.

     >> Karl, I think you raised your hand? No? Mistaken.
Okay. We're just looking pensitive. That's normal.

     After that small clarification, so on, on the process,
can we maybe go back to the document in 10.2, it used to be
9.2, so 10.2.

     So 9.2 relates to volume channel controls within the
game title, and so this is more elaborate than the control,
we mentioned at the hardware level, this is talking about
the various settings like the master game volume level or
the game module level, the loud sound effect, self game
effect, if game music, voice, chat, et cetera. I did show
an image yesterday, we can project again, from a particular
game title that ultimately the idea is that the gamers, the
players, they should be able to reduce specific sounds that
they consider non-essential to the game experience, and the
overall, of course, the master volume level within the
game.

     So that is the particular feature, volume controls,
which is talking about these, actually before we even -- so
before I stop and move to 9.3 after discussion, I would
like to take 9.4 here, which is -- 9.5 here, it is still
sound reduction. So that also should be included in the
sound menu. So the controls.

So just, if we can have comments on 9.2 and also if you would like, 9.5 or we can put 9.5 up.

>> On 9.5, I recommendation we just remove that. Main reason, is that it strikes me as an accessibility feature, not a feature that protects people's hearing. It appear as little out of place at this document. It is also an extremely new scenario that effects a small fraction of the video games that are out there.

Primarily because it doesn't strike me as a safe hearing feature, it strikes me as let's make the game more accessible to people who have tinnitus. It struck me as being out of place.

>> SHELLY CHADHA: I would say it is a bit of of both o this seems to be high frequency, high volume sounds which then mimic the tinnitus that they are inducing.

Can I have a clarification? Tinnitus inducing sound, you're talking about not simulated tinnitus in a game. A sound that might cause tinnitus.

>> So tinnitus enduing sounds are usually related to flash banks, sound effects, simulations of tinnitus, both of the things. Yes. They induced tinnitus and tinnitus sounds that Sim light tinnitus.

Those strike me Rashid Almemari different things. One is simulating the tinnitus, in a game that's annoying to someone that hasten nights, currently in accessibility options, some games allow you to remove that. That seems to be different than a sound that is like to cause tinnitus, which I assume would be any, you know, sudden impact sound or something.

>> Yeah.

>> Maybe Mark will clarify a little bit.

Well, at least I would change the heading to tinnitus triggering sounds. Otherwise it is confusing. I think that there is no definition for the tinnitus, it is many things. If you do that, I think you are looking into this, and of course tinnitus, it is as preventive as if you avoid tinnitus triggering sounds in that part. I would in factory move the fact that you remove sounds, sound like tinnitus, it is not really the issue, and I would leave that out. I would make it clear that you want to avoid, that you trigger tinnitus by game and I saw it in some games, even having those options already available today.

I think it is part of being a safe listening game.

>> Thank you for the clarification.

Yeah. Sound, how do I know what is a tinnitus causing sound, a loud balloon pop? Is it a rock band in the corner? I have no -- to me -- and I don't mean to get into

the how to test it. I don't know how as a sound designer
how I could possibly meet this.
     >> Although I think there are some clarifications, we
already mentioned that flash bang sound effects,
mostly -- do I need to get rid of the explosions in my
game? What about a sound that's not an explosion but is
sort of like an explosion? You know, suddenly someone
jumps, says hello! If that's too loud, is that -- again, I
have without much colorer definition, this seems to be to
be very difficult.
     >> Peter?
     >> I agree on we should probably be specific in terms
of whether this is a hearing related feature or an
accessible related feature. It is the inclusion in the
standard, it is because I think it is more on the hearing
related side.
     I mean, you have to know about being inclusive for
more people with tinnitus but the purpose is to reduce the
sounds or remove the sounds that triggers a tinnitus over
the short-term and long-term. It is also worth noting that
these sounds tend to be high pitched in nature, some games
are trying to simulate the actual experience of tinnitus.
Some of them will trigger it with sounds that are similar
to tinnitus. Some games, such as some racing games I
recently came across, give an option to provide soming of
tinnitus sounds related to the car engine. In the car
situation, you don't have people shooting, no explosive
sounds, you have certain sounds of the engine, which may
trigger someone's tinnitus and in this particular specific
game they had given a filtering option with some noise to
mask potentially tinnitus inducing sounds. A comment on
mark's point on tinnitus sound. This is used in the sound
menu, if you look at a various group of games I found, with
this particular feature, in there, they generally refer to
it as tinnitus sounds.
     Attempting to use industry lingo.
     >> Perhaps with the comment it not being clear, maybe
worthwhile to you -- we already have a bit of text there
about the type of sounds which could induce tinnitus. But
to be more clear about what kinds of sounds are included in
this usually, again, it varies from game to game, but to
say which are the typical sounds which could induce
tinnitus.
     >> The pregame sounds, it is a quality of the sound,
you have to consider one, if they have frequencies, the
kind of frequencies we're talking about, but also the
intensity. Technically, every very intense sound over the

100 decibals, 120 can provide or cost to the person that's listening independently of the frequencies. On the other hand, they have the acute frequencies that are in general the most related to this. We feed to consider both of the qualities of the sounds for this. It was an old hand.

　　　>> Just wasting time. If tinnitus sounds is official titles being used, is it not worth just putting out after that immediately sounds that trigger at the nights, we're keeping two of that and some people don't know what it means. I just put that forward as a suggestion.

　　　>> Yeah. I attempted to address that I think from Peter that by adding this note there, saying this is normally referred to as tinnitus, something about the status. We created the linkage normally we wouldn't have the standards, a more neutral title, not the specific lingo, things like that. No.

　　　We skipped down here, we were discussing the general controls.

　　　Thank you for reminding me. Yeah. We were here before. April.

　　　>> So any comments about 9.2? Yes? Brian? Please. We foe that last time you said this is, like, you know, asking somebody to tell -- if Steven Spielberg has the movie drafted, that comment, it is very well recorded in our minds and the reason to maintain it, to give you the context, it is being done if some games.

　　　>> Absolutely. Yeah.

　　　Back to you.

　　　>> I think that to meet the spirit of this in a way that's more likely to be better received by the development community as well as more easily understood by the development community, they would know what to do.

　　　I think I would recommend that we make it clear that these -- that these designations, master game, level game, round sound effects, they are simply examples, and that your game may very hugely in terms of what, you know, an actual thing would look like it.

　　　It reads prescriptive as it is, and I think that, you know, it would be useful for the document to understand that there is lots of different coins of games and that the philosophy is what's important, not the details of what --

　　　>> The reformulation that addresses the point.

　　　Examples of -- yeah. Yeah. I think that -- I think it is --

　　　>> Such as to -- it is -- it is the same thing, just written in a different way.

　　　>> I think it is written a little different.

>> The attention it draws, what is required, it is
that you have indefinite channel controls, not prescribing
what they are, and that will be varying according to
context. I think that's the point.
     >> SHELLY CHADHA: Maybe we can put the second part,
the volume channel controls can provide gameplayers an
efficient way to reduce, et cetera, et cetera.
     It can be put at the top so that the intent becomes
clearer and what the controls are, they are examples which
could be indicated.
     >> I was going to say the same thing, may be worth
putting a rational as to why this is important.
Essentially talking with the various people, the
stakeholders, the gameplayers, and asking them what would
encourage you to listen more softly, quietly, safely, this
is one of the suggestions that repeatedly had come up. If
I could have some control over the important sounds and the
important sounds, and this not to disrespect Brian's point,
you know, you have the sound tracks, they're very well
thought out, designed in a perfect way to provide
entertainment experience, but having said that looking at
the game plays perspective on how to listen more safely,
this is a common suggestion. Yeah. I think that the rash
that will nay be an important step to explain to developers
why this is here and the purpose and why we have made that
recommendation.
     >> I appreciate that. Agree with it.
     I think it is -- as long as it is put in a good
context, that certainly will make it feel more pal latable,
I appreciate that you understand the example, of which
music from Starwars is in not essential. George Lucas says
every experience and sound is essential, even if they
understand it without the sound effects.
     I do think that I would like to find some way to get
rid of the folks of non-essential sounds. I think if we
say sounds that don't significantly impact the gameplay,
that's more palatable rather than telling the designers
what they did, they may have well not have done.
     >> Thank you. We really appreciate that perspective,
thank you.
     >> I wanted to highlight, this is an area where I
think it is difficult to build a test to it. How? How
does -- how do you give this to a test house and they make
some assumption on what they think is okay. How do you
define this as such? A bit of a mystery?
     >> Only about the player having the control. If you
can control, you can change what is the game dialogue

level, the round sowed, you can lower the range in that way
and it works. It is only that you have the option to
control. There is no default setting here.
        >> I think here, it is the compliance, yes.
        >> It has.
        It is not like -- she has -- she allows you to
equalize between my stand and her stand, it is not talking
about that.
            It is in again really, high-level, that's why we
need this document alongside I think.
        Yeah.
        I guess we can go to 9.3 now.
        >> Yes.
        >> So 9.3, probably the most contention part of this
document, which is to say that there should be a safe or
safer listing mode in the device, in the software. And we
discussed this last year, last workshop, and briefly and
there were lots of comments about it, about the different
nature of games, the different nature of sounds in a game.
So every game is not going to have gunshots, you know, very
loud sounds. Some games will be as was said yesterday, his
mother plays a game, but with very, very low sound level.
What we have tried to do here now, it is to say that the
safer listening mode should be -- the features of that
should be depending upon you are the sound level of the
game. So they may be games which are loud and those which
are not so loud which we consider as medium, let's say.
        Then those that are soft.
        Here we have used the concept of what was mentioned
last time, LUFS, we have tried to divide that, the games
according to their average LUFFS level. It is in three
groups. Then the requirements vary according to the LUFFS
level. So that is LUFFS level. We haven't defined the top
range, but it is -- at some point we wrote minus -- we
haven't given the exact value. The standard basis is
referred to as 23 ending.
        Yes. 932.
        Yes.
        Yes. Those are above or employ that. Yeah. You have
a way to put levels in place of X.
        The first -- and the most important thing right now,
it is the concept. And the actual luffs level we have mud
an indicating level there as you can see but it needs phut
discussion to see what exactly can be this level, but first
we want to have this concept discussed, that the safer
listening mood, it is according to the loudness level of
the game and the louden level measured through LUFFS over a

13-minute period.

So that is it.

Then the high LUFFS sounds, is has safe listening, an initial dynamic range test, and there is -- there are all sorts about tinnitus and then the volume level is already set at 60%, dynamic range compression, and automated auditor report medication of certain non-essentials but what -- I don't know, not super fluids. Additional sounds which are not intrinsic to the great many. Or not. We look at the right phrase in work.

Firstly is to float that idea, and in game captions to also reduce the need to turn the volume up, to be able to hear the soft sounds wherever required.

Accordingly then for the medium reallying, the requirements are lesser, the least for those that have any availability to know sound level, just to ask if they have tinnitus and then enabled captions.

Peter, do you want to -- I see a hand up.

>> This is an industry standard, not mandatory, as I understand it. Feel free to correct me.

Many developers that I have spoken to, especially the large budget titles, and the largest, they adhere to these levels as the target over a 30-minute window. We take that, and it is based on ITU and the equivalent standard for broadcasters for television.

The reason why game developers use that, it is for I guess equalizing the loudness of the experience between a game and perhaps other signals connected, like the digital TV, DVD, within the realm of the same loudness. It is also done and heard it being discussed as beneficial for listening for this if it is around the same kind of volume. Using that notion of what level again that's mastered that, we can then I guess condition include whether it is a loud, a medium, a standard or a soft game. We can use that as an indicator as to what safe listening features should be enacted as a result of this part of strategy.

This is sort of based on the discussions from the last workshop. It is a methodology to figure out whether a game is loud or softer, medium, and therefore saving us from applying safe listening features that may not be required if it is a very soft game or game without audio altogether. This was mainly understand when dosimetry is not available and it could be useful to determine what features could be activated.

>> Mark?

>> Yes. I think it is somewhat comparable for the speech dosimetry, minus 25, I know it is used by Apple for

made for iTunes, they have requirements, and the risk is
that they should -- if you don't have enough headroom, you
will get distortion and you will get poor sound quality and
poor dynamics. It is not only for the safety aspect, also
for the sound quality aspect, that this is important. The
only thing that I don't understand, understand, this comes
if you don't have any control, but why in this document we
would suggest that you go to a high-level of something,
because I think why aren't we doing the same as they do for
this if you're above a certain level, you don't comply to
the made for iPhone, iTunes sound quality requirements
because this is never a good idea. I would suggest to kill
LUFFS and say that the requirement is maxed that you're at
minus 25LUFFS and then you get the combination of good
sound quality and dynamics. It is really easy to control.
It comes from the sound level game of music, right. I
think that the compression at some point, making it as loud
as possible, if it is coming through television or radio.
        I think it is a very good concept. The only thing I
wouldn't do, I wouldn't suggest something which is bad,
which is typically high LUFFS, the rest makes a lot of
sense if you ask me.
        >> Please?
        >> This is a comment.
        Totally subjective comment and qualitative comment.
        I would like the safer listening, it will be smart
listening, not the bor listening for gamers.
        In some way, I think it is important that this changes
in the sound output. Don't really disturb or change in a
bad way the experience of the gamer. It is very important
to consider this during the process. We want people to
really continue doing video games or being happy to also
take care of your barrier. My concern is that if we change
too much,   the sounds, we can maybe change the experience.
We need to be very careful on that.
        >> Maybe you would like to hear from Brian, from Karl,
others how dynamic range compression is used in games. Is
sounds like a very controversial area. It was very
important to the music market. One of the reasons why that
was introduced in the first place, was to go away from the
compression because that damaged the quality of sound. A
little bit personally hesitant to hear. If you have any
comments on that. Okay. Yeah.
        >> I kind of see, Peter, what you're doing here. It
almost looks like you're providing incentives in the spec
to not have games shift to higher LUFFS, adding the dynamic
range test at the beginning of gameplay, that's obviously a

non-trivial thing to implement the game and to ask the user to go through. Is that kind of right, is that a reason why it is only for games that are above, you know, sort of the industry standard.

It was a soft -- again, encouraging very strongly not to do it by requirement, they do a bunch of, you know, difficult work to try to -- if they do measure themselves out loud, I'm just , am I reading more into that than you put in there.

>> I guess to make it less than safe. Peter, please.

>> If I could just say a few things quickly. So I guess the one general question we have, it is the concept, does it work, not work, then we get into the detail of these differ features, these features were extract through various conversations we have had. The dynamic range test is akin to what many games offer a gameplayer at the beginning initial setup but for visual purposes, you set the Gamay level, the brightness, the contrast based on particular images, the concept was suggested, perhaps we could do something in that area for sound where you could get a sense of a player's comfortable level, uncomfortable levels and soft levels. From there, you have a dynamic range. Here is diagnostically accurate to a hearing test, no. All of a sudden, you know what works for them what, they can hear. That's a comment on the dynamic range test. It is akin to the visual brightness contrast and the gamma tests that are common in games during the initial setup. The second thing on the dynamic range compression, it is commonly referred to as a night mode and essentially it allows a player to hear the entire range of the gaming sound at lower volumes.

Going back to the conversations we have had over the last 12 months, it was again commonly suggested not as a direct safe listening feature, but an indirect saith listening feature that could encourage other levels of listening without the game experience.

>> Going through these options, that's optional things to do in a game, correct? You don't force a player to go through those.

I won't say they're mandatory. In many examples, I'm happy to provide them down the track, but in many examples of game installations, you are presented with a Gamay option immediately so you go through the user acceptance contract, you press start, then on many titles, at least the ones I have looked at in the last few weeks, you're presented with the Gama ray control test. In some cases, I was delighted to see this is set up straightaway afterward.

That was the intent, the concept behind a dynamic range
test. Something equivalent of the digital controls.
     >> Richard.
     >> Yes, to do with the relationship between what we
have established is a safe listening level. You know, the
40 years of 80 across a week kind of thing.
     The relation to that, to the LUFFS, is there any
evidence of what that relationship is. I'm slightly
concerned because of the high dynamic range, the low
dynamic range makes a huge difference to the energy dumped
in the ears. It is just a question. I feel very uneasy
about moving away from what we have accepted is what's a
safe level for the ears.
     >> Shelly.
     >> SHELLY CHADHA: So Richard, to your point, so this
is firstly to say that the 80 decibal, four hours, it is a
time trade-off. That is ideal to measure, of course.
Whether LUFFS is mapped against desibles or not, Peter can
comment on that perhaps. Here we're talking it again, an
individual may play that game for half an hour a day, a
couple of times a week, not a problem. They are -- they
don't want to fiddle around, do any changes, fine, because
they're not putting -- the only thing, it is for limited
better period of time, it could be another person playing
it for 40 hours a week, I don't know.
     What I'm trying to say, in the absence of those
measurements, it is not possible to assess how that will
convert into actual dosage, not just decibel level but
dosage. That's one point.
     To the point about dynamic range compression, I think
it is a bit different from music where the high and the
low, the lows of music are -- yeah. Are essentially
cut-off and compressed.
     You are just reducing that. It is the same principle.
     Here what we are doing, it is to row dues certain high
sounds which -- sorry, the loudest sounds, like certain
cheering of the crowd, or maybe a short or an explosion,
you're reducing the sound of that. You redose the energy
that's coming out at that point, not pressing the whole
range and reducing -- you may put up some that are lower,
because you want to hear them at the higher level.
     Otherwise, you have to raise the whole volume up, that
is the difference. Between music and gamic. Maybe I'm not
able to explain it that well. You look like you don't
understand.
     >> I think I understand. I don't think there is a
difference, compression is compression. It is the same

effects. What you're saying, more selected application of the dynamic range compression rather than the signal that I have experienced. But one particular segment, but even there, I think the effects could be similar in terms of the distortions that ministry bring over the quality and sensation of this house. So, being the devils advocate here.

>> All right. Peter, you wanted top complement?

>> Yes. Festerly, there is no link between LAFS and LPS, it is a reference full kale, not the output of the amplifier into the system. You cannot necessarily conclude that again master is minus 23 or lower, minus 30 will play at a soft level at the head people. That's in the control of the gym player. It is essentially Baching about how the game is masked, what's it recorded to do the digital format that's opinion ultimately police department, is, it comparable to other media played on though system? Is that -- that's an insert to riched.

>> Secondly, dynamic range compression can be modified depending on the parameters of the compression. In certain examples I have come across, the wider the compression is configured with the threshold and ratio, it is to earn mainly effect the louder sounds, there is one example of the first person shootout, recordings are available, you sew the range, it I didn't necessarily boost soft sounds tremendously but pulling downloader sounds which is effective in that scenario because the surrounds of people shooting and the gunshot downtowns of the first person. If he that makes sense of.

The completion gun could be loathal on sound systems like music, but it takes away and it can make things discorted and poor sound quality for the second making things louder. There are ways, perhaps this is an option if we do pursue to prescribe certain types of compression ratios or Po behaviors of the compression system so it is not going to result in a distorted experience and it results in -- and means to achieve D it is worth noting the of 6% of the volume with compression range, the lower level of reallying, it is blocking access it all of the areas of the game. Looking at this isolation, it could be detrimental perhaps. If you combine it with a reduction of the master volume, as well as of the system or the game, we can achieve a lower roll, he can achieve access to all seasoned of the game or a small level ever dosage. Hopefully that makes sense.

>> CHAIR: If I understand, when the user selects safe listening mode for this piece of this game, if that came

foe it's it was attared at minus 15, then the game would have to enFord to meet the safe listening mode monicar would have to reduce the master volume by some amount.

There would be a certain amount of dynamic range compression. I agree with you. Actually some games implement at the nighttime mode with -- not only a compressor limiteder but having a separate mix of the Dame that simply doesn't make -- it is essentially managers of a dynamic range of the imat a mixed level rather than final output level.

>> That's the concept. Just trying to figure out how to determine whether a game is loud, at Reyes we had conversations of game Doverer the, whether they determined, this is a loud game, this is a soft game. Be offend -- characteristics indications.

That's when we don't have the high and the low, we need industry input, we have the podia, the standard, that this goes back to the concept that it should be a tick box, a safe listening mode, a default set, wow didn't don't want the gameplayer to necessary circle think about what's to enact and whatnot. The concept is based on the work group discussions from September.

>> Yes. I get it. The dynamic range test, it a heavy load, heavy list. I maintain it. I get it. Whether than asking the gamer whether it is a tinnitus of a safe listening feature or -- you have heard me say it.

The phrase not essential game audio, again, it is I think -- we need to find some way of softening that. I did have a question on the captions. If somebody didn't want to have captions on but wanted say for listen, it seems like there is no way for them to do that right now, all three safe listening modes ult you will matily turn on closed captions, I might recommend that we keep closed captions as a separate thing that a user, player can turn offer or on.

I don't know if that's the case. It -- tying the two together, again, I wouldn't want anybody who didn't want captions because they found those visually ininstrusive, to, therefore, not activate safe listening.

In which case, there is no 9.9.3 needed, if we don't ask for tinnitus and don't enable captions, that goes away.

>> This would need significant impractice on the medical Committee and finding a way to get more formal input from the developmental community would be good for us. It is intrusive, there are attempts to simplify -- oh, yeah.

>> A miner he comment, the standards for games say

minus 23, love, Spore, consoles but mine 19 forehand helds.
So if you do a DS game -- the I were decision there was
that you were less likely to consume other tips of media,
it is a little bit louder or coming out of little speakers
on the device or something.

>> There is a limitation of the speaker that terms
that routine.

For something like this, rather than spring it on the
development community, it may be a really good thing to
have a formal mechanism, it is for receiving input on a
public draft proposal, even if it is only of this section.

When you go three, we go through Karl, we can -- you
know. You I think for as I mentioned, in email, Peter, the
difference between hey, a bunch of the top games seem to be
doing this already and making the leaf to every game must
do that. Whether it is a two-person Indy studio, a
midlevel game, or -- you know, a gage with 600 people that
takes five years. I think that's a bit of a leap though.
Is.

>> SHELLY CHADHA: We can convene that discussion with
other developer, game developer, or to go through the
existing channels, through the chair, through others who
are online, those in the room, et cetera. To kind of get
inputs on this and see how it would look.

>> I had a broader comment. You know, 9.3, safe,
safer listening mode, audio setting refers to safe
listening mode. As I was looking at the summary document,
not the actual H.70 spec but the prettied up, at the
bottom it does say it is therefore recommended to refrain
from signaling safe and green in the user. Because of
uncertainties in the SPL level. So I -- I was -- it seemed
a bit of a conflicting thing there.

That's -- and a halfs -- that is with respect to the
dosimetry. Dosimotry, we have inaccuracies,
inconsistencies which we accept in the measurement and
given that 3-decibel shift means doubling --

>> Doubling, right.

>> You have the tools, so we don't want to indicate,
to say this is safe, or not. Simply to give an
indicationer, in some way that this is your -- this
is -- you know, your calculated sound, consumption, and
this is over the limit, under the limit, maybe putting you
at risk. Things like that.

>> I was concernedal -- I'm not a lawyer, obviously,
but I could envision a console or a game developer being
worried that, you know, the player checks safe listening
mode, and they played 72 hours straight at volume to the

max. They get the -- but the gym told me it was safe. So
essentially since we're using this as a proxy for SPL --
     >> Yes. That's why last time, the discussion was
instead of safe, to say save first so absolutely mow to
that, I like what Catalina said, smart listening. It could
be smart listening mode rather than -- so be smart, listen
safe? Epp we come back to the point that we need to get
input from developers, also about the suitability of having
these options, what we would like to see is that the gamer
has a safer or smart listeninger mold or option.
     Now, the is the mod is already there. We're being
implemented in many softwares. So is the debate, would the
question, let's say, to pose be should we have there or
what should be within it? That's the question to you here.
As people who are knowledgeable in this respect, because
would the -- so when you say it is intrusive, is it that it
would be intrusive to have such a mode? Or it would be
intrusive because of some of the requirements outlined in
this mode? 9.3.1, you require a developer to write
specific software and put the developer through a certain
experience. That's intrusive on the development process
and intrusive on the player experience. Actually that
brings us an interesting question, I assume that you
envision that this standard applies to all soft -- to all
entertainment software made, regardless of the size of the
studio. Again, I can envision, right there, you know,
hundreds of games made every year, 500 games a day that go
up on the app store. My guess is many have not heard of
this stack, do they get pulled down --
     >> There is no requirement, there is no legal
requirement for Apple or Google Play to only put up titles
that are safe listening. Same thing in a way, like, you
have all of these G13 -- all kinds of classifications and
is this a game, safe listening, game, and that's one that
ignores all of this, not to be compliant. Do we want to
promote them? We don't want to promote them, it is not up
to us to promote or not promote. It is just something that
it is falling in those design guidelines, and there should
be a way of checking that. If not, then a claimant cannot
be seen as such.
     I think in the end or not, making a regulation like in
Europe, the use of no indication that you are listening too
loud, it is mandatory in regulations. So putting the
device aside, still for the levels, this is part of that.
We're not talking about that here. Here it is a label that
would be conducive to things that would probably preserve
hearing in the better way than what we have today.

>> I do standards, they're not mandatory, and it is not -- it is voluntary.

Countries can regulate for it, they say that your device must comply or your particular product must comply with this requirement to be let's say sold in our market or marketed, whatever.

I guess we have a clear understanding of the issue here.

So should we go to the next clause? Audio device, safety mode? Don't think it is -- 12:19 right now.

Yeah.

>> So I -- this is -- okay.

>> This is the last point anyway. In this section.

That's the headphone safety mode which was -- which is also in the hardware requirement, but again, it is pretty much the same feature, but it is to reduce the volume of the game, and again, this goes to the reason for the duplication is considering that these are not necessarily going to be -- it is not a given that every game would be played on a compliant hardware.

>> Comments or questions.

>> Yes, I think since we want to encourage game developers to comply to the standard, and it is a shell, I would be careful with this one, it calls for interaction between the software and hardware at that moment to see what's happening. I would focus that this is mandatory in the hardware, within the software, think that you're making your life difficult. Or we lower it as is recommended because otherwise, it is difficult for game developers to be willing to be compliant, to be willing to be fair.

>> Thank you. Point well noted. It is a good suggestion to keep it there as a recommendation, or a suggestion, but not as a mandatory feature.

>> CHAIR: And then we discussed this, we're in the new clause, on text based.

>> Assuming no further comments on 10, but of course we can open it again if we have time and there are. The text-based health warnings relate to information that is provided in electronic -- if user guides and related electronic resources or websites.

Wherever the information is being provided, about the game and the hardware, et cetera, so that is where we should include a statement and again, we can reword it in consideration of the earlier comment, not so athat video gameplay and activities can be a source of unsafe listening, but do say listening at loud volumes, they can put your hearing at risk of permanent damage. Et cetera.

Et cetera. We cannot give the exact words for you, but we can rephrase this particular requirement in that way and that information is provided to the player about what kind of things could indicate that they're having the hearing damage and what kind of features are included in this particular hardware or software. This 11, right now, it applies to not just hardware or software, but in general, so it should also provide information about what kind of features are included in this particular device or this particular game., it should provide information further on in the safe listening feature, the safer listening mode, the mode, so that they can make good use of it.

One comment, if it can be consistent with the loud sound of the source, not video games in itself.

>> As I said, we will make that change in the phraseology and we would like to make that note very clear now before it is put up as an output document so that we will rephrase it and definitely in the document before you share it with anybody. If no further questions, we'll go to the next subclause,.

>> SHELLY CHADHA: That's all in 10. We covered both things. Yes. There are some examples. We can look at that.

And then should we move to.

If there is no further comments. Just to mention, from my side, when you say text based health warnings, I was a bit confused, that you're actually referring to product -- information and product. Either in the product manual, maybe the introduction. The main clause. This refers to, something like that.

>> The section based guides or related electronic resources and websites. Is that not clear.

We have the 10.1, 11.1, just describe the text based -- what we're referring to so that when we read it, you already have it set in the right place, rather than finding it out when you read the requirement.

Definition issues. Sorry.

>> Headphone, register.

>> Just a point about the previous one. So the requirement, it is on the video gameplay devices. Right. So devices.

Yes. It is left over, something we didn't correct. So it should be with both the device and the -- and the software.

>> Software as well. Yes.

>> Or the device manufacturer or -- I mean, device itself has to provide or -- and -- sorry. I think it needs

to be clarified.

Another thing, it may be interesting or useful if WHO provides some sample text so that they don't have to create their own --

>> I think we have an appendix 4.

>> Okay.

>> We have appendix 4. Maybe refer to that appendix in the 4.

>> Yes. Yes. It is referred to here.

>> Okay. Good.

>> Can always improve the appendix 4 but there is a hope to that end.

>> Yes. Yes.

Moving on to 12 here. It is about the output sensitivity value register and this was brought up yesterday as well, where we would really like to have -- we haven't discussed how it will be handled. Access to information about the technical specification information from hardware, especially the headphones and so on to be able to facilitate accurate dosimetry across different devices and different headphones. So assuming that your headphone is not -- your device does not have the -- let's say the sensitivity information for that for that particular headphone, which is being used as Mark had mentioned yesterday or maybe Richard as it assumes the worst case scenario and calculates that dosimetry according to that. But having more accurate information would lead to accurate dosimetry giving also better information to the players and will be better also from the management perspective of the industry. That is where that is coming from. We have already touched on this yesterday. And Karl had comments as well. Does the ITU have something similar.

We do have a registration function. It is not like this. We have many different approaches of doing that. This is a very simple statement that this information is provided to ITU. We do have a registration scheme with a federation type that organizations within countries are designated, would be the actual registers, and we have what we call -- we have the name, non-standard telemetic equipment. It basically says certain types of products can be registered in the modes, ITU registered the countries and the countries say all of the registration authorities in the country and they registered the manufacturers and the manufacturers had the actual list.

>> It was a tree-base? That could be a different -- one more way of doing that using an existing scheme or could be something different.

We have this registration authority function. WHO
also has for medical products and things like that. They
do have -- let's say the infrastructure replaced for doing
that function.

I think this is going for refinement, what's the best
approach.

One process is not for ITU but to create a
registration authority, the organization on the site could
be responsible for maintaining that registry. And it is
that kind of services, so this is up for discussion. Maybe
what's most important here, not in detail, but whether on
this idea of having a central, a single source of
information, whether it is centralized, decentralized, it
is federated, would be a good idea.

And -- no. No. From there I suppose.

Anyway, these are my thinking on this topic.   Thank
you.

Thank you. I thinks something that we should think
about in parallel to the work on this standard. On how it
could be implemented and on whether or not there are costs
involved who there are and depending which way is done, and
the format of the information, how would manufacturers
prefer that that information to be presented in the easiest
way. (Captioning will end in 2 minutes).

>> It is an important issue, this whole topic really,
I think it needs to be thought through as we have the time,
not left to the end. I think it is -- we need to do it
now.

>> The captioner warned that we only have 2 more
minutes of captioning. So I don't know if --

>> I can simply windup by saying that in 12, what we
have, are features for live esports events and we note here
that there is a kind of a conflict in the way that they are
written because we say that features of safe listening at
live support events can utilize this global standard, et
cetera. And then we list out features, shall, shall,
shall, this is something that we did not work on the lower
part, but mainly on the stems and the earlier description.

What I would suggest in this, it is that we maintain a
slightly modified part of the top form, we'll do that work
to make clear that this is a recommendation for action, but
we put all of the features as an appendix so that it
doesn't become a part of the standard per se, as well as
already discussed.

Okay.

>> CHAIR: Yeah. So just to make clear, we just jumped
from the registration authority discussion to the last

clause of the document. Making sure --
     >> We were done with the registry.
     >> CHAIR: Yes, talking about --
     >> SHELLY CHADHA: Sorry. Sorry. I thought we were
ready to move on.
     >> CHAIR: Yes. We only have --
     >> SHELLY CHADHA: Sorry. Yes. I didn't see any
comments. Sorry about that. Sorry.
     >> CHAIR: So I just make a note here. (Scheduled
captioning time is over).

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