

Dispute #674: <https://court.kleros.io/cases/674>

Profile: <https://app.proofofhumanity.id/profile/0x46216efbe8310b1f16fa89393516acbc79957f6a>

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Dear Jurors,

It is my intention with the evidence I am submitting to convince you to rule in my favour and dismiss the challenge made to me.

It is clear that the intention of the person that challenged me is not to curate Proof of Humanity list, nor let PoH grow, but to have an economic return. This ruling cannot set precedent where a bad actor has clear intentions to harm me and open the floodgates for future disputes about this technical issue.

When I proceeded with my registration, I uploaded my video sharing it previously via WhatsApp and that was the reason why, when uploading the last version, it was compressed and cropped to a WhatsApp "360p" standard (352x640 pixels). **It is clear that, even with these 8 pixels cropped, I am still a human.**

I want to remind everyone that the last objective of this registry is to prevent Sybil attacks, and the challenge to me does not contribute in any aspect to that end.

Let it serve as a precedent, that this court can demonstrate empathy and solidarity which are the values that found Kleros and Proof of Humanity, not getting carried away by loopholes by opportunists to have an economic return at the expense of humans that saved a lot to make a deposit and be part of Proof of Humanity.

Clément Lesaege, CTO of Kleros says in his candidacy to become a delegate that:

"I believe proof of humanity to be a very important tool for web3 sybil resistance which can allow better distribution of both wealth and influence by using systems such as 1 person → 1 vote, 1 person → 1 revenue stream and those related to quadratic funding/voting."

If we talk about a better wealth and influence distribution, what is being shown to the system if opportunism is allowed and using funds to challenge this and be evil?

In the description of this court we find the following text: **"In this court jurors will judge disputes related to establishing Sybil resistant lists of unique human identities, particularly for the Proof of Humanity protocol.."**

**I consider it necessary to point out that an 8 pixels difference (made by WhatsApp in Android for their encoding method) does not obstruct in any way my facial features nor any letter of my ETH address. Let's keep an eye that the video complies to demonstrate that I am a real human.**

Does the challenger imagine how extremely complex it is to save 600usd? Do they know that a retired person in Argentina earns 250usd per month? Can you have such disrespect for someone else without thinking of the consequences of it?

As you can see in the following link, dispute 674 and 673 were made by the same address in 12 minutes:

<http://klerosboard.com/juror/0x1d9a3491e28c2e688d9c3c846391eef345d68c6c>

Is it just me that sees this behavior of someone looking just for an economic return and not to curate the list?

***It is impossible to consider even for one moment that the challenger is doing this to help Proof of Humanity be more secure.***

Getting into the legal aspect, it is known that every norm is subject to interpretation: *It is needed to understand the content, some context to provide a meaning.* To interpret is an activity always developed while understanding the context.

This challenge is clearly someone taking advantage. The context explained above should be taken into account.

From a natural law point of view (considering that rules and rights are part of human nature and preceded any other law), we are in front of the possibility that this court, being the end of this video to prove my humanity, can consider that 4 pixels from both sides should not be evidence enough to challenge my profile and rule in favor of this challenger. ***It is, once again, about being human.***

It is demonstrated that a positive understanding of the rules (detailed and literal, without any change to debate about it) opens the doors to a speculating game that does not favor the spirit of this project and enables situations that will certainly not help PoH.

I do want to overlook that I am not against the rules, I understand that Challengers are a critical part of the process and economic incentives are needed, ***but I consider this case is fundamental to lay jurisprudence about the importance of curating a list, and do not give chance to this kind of oportunism.***

***The Challenger should have the focus in curating the list with real humans, and not look for this technicism to take the deposit from someone else.***

If this Court accepts this behavior will legitimate opportunists and Challengers looking for money and not to curate the list.

PoH is a project being developed and for it to be successful, this kind of behaviour should not be tolerated. This will also help to improve the interface.

I hope this Court rules in my favour and not for someone taking advantage of a misinterpretation of what 360p actually is.

Let it not put itself in the place of the callous.

Let opportunism disguised as justice not be legitimized.

# TECHNICAL ASPECTS

This is a revised and updated version of a post made in the Proof of Humanity forum (<https://gov.proofofhumanity.id/t/imprecise-rule-regarding-video-quality-of-submissions/443>)

Referring to the guidelines we have that for the video to be valid:

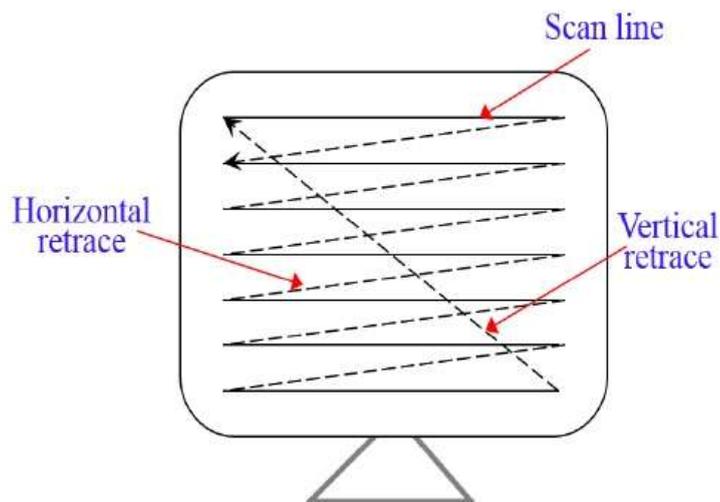
The video quality should be at least 360p, at most 2 minutes long, and in the video/webm, video/MP4, video/avi or video/mov format. Lighting conditions and recording device quality should be sufficient to discern facial features and characters composing the Ethereum address displayed.

## ***Mistaken understanding of what 360p means***

There is currently a misunderstanding by the challengers and in the general public that 360p means size in pixels, probably because of the confusing nomenclature and the usage of the letter “p” which is usually misinterpreted as a unit of measure which is not.

## ***Origin of the xxxp nomenclature***

Cathode Ray tubes, the base of the first television and first generation of computer monitors form an image by doing a sweep of electrons in a phosphorus screen<sup>1</sup>. These lines, called scan lines needed to be standardized, in order to be able to transmit images in the proper periodicity in the signal:



The definition of video format standards is an inherited nomenclature from the time that analogue TV transmission required how many horizontal lines were required to form an image on a cathodic ray tube.

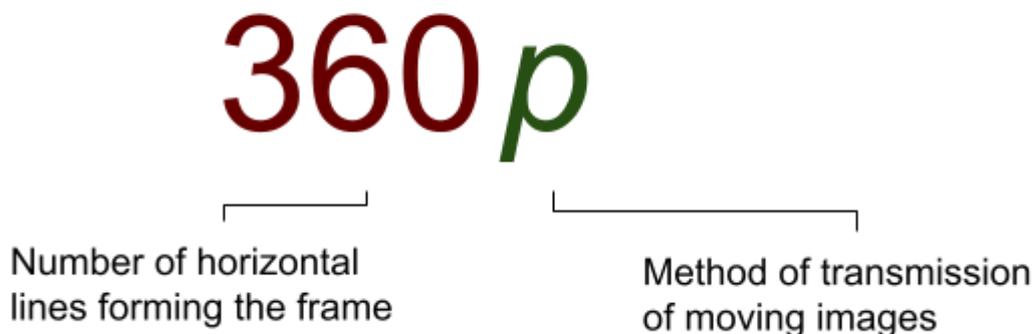
There are two methods that the moving images are portrait in these systems: the first one fills the screen with half of the lines of the image in the first frame first, and then a second line fills the remainder of the image in motion, giving the illusion of double the frame rate that originally generated. This process is called ***interlacing***, and video formats that used interlacing as a method were referred as the horizontal lines and a suffix “i”. The alternative to this is the full scanning of the entire frame each time, called a ***progressive*** video.

All norms that used progressive video scanning, like the PAL norm, had to have a “p” suffix to signal this method of scanning. This is why 360p is referring to the height of the image in a standard aspect

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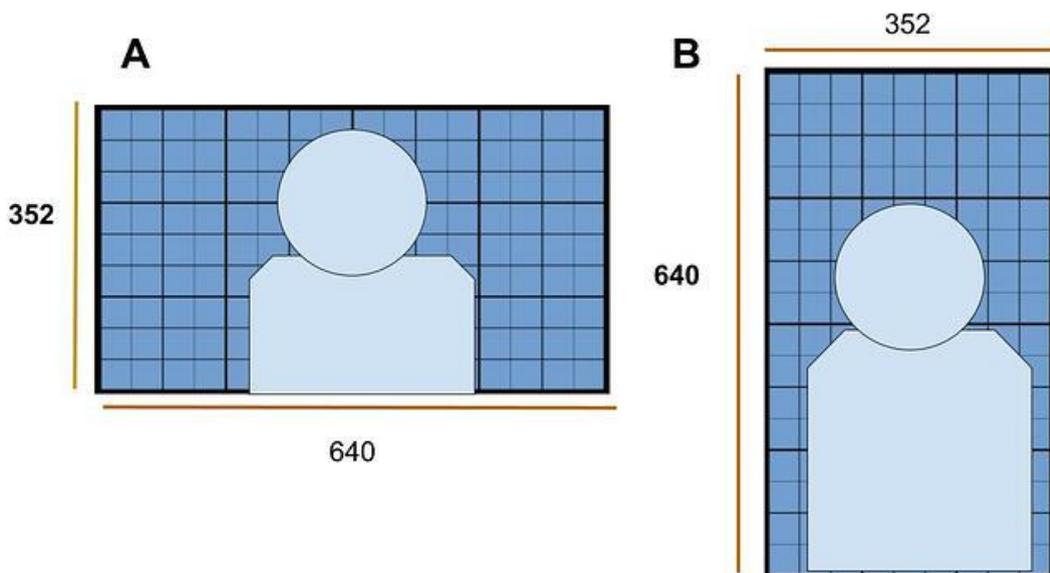
<sup>1</sup> **United States Patent US2152234**

ratio (4:3) of the old TV sets. We've come a long way since then and the digital image creation and form factor of the digital video cameras has changed a lot since then. So we have that the xxxp norm is constituted by:



### ***Misinterpretation of the term in courts***

In the Kleros courts, the term 360p has been willingly or unwillingly misinterpreted as the size in pixels of the image frame. In case [Kleros · Court 5](#) the argument is made that video is 640x352px and "does not reach the required 360px *in one of its dimensions*." which is an actual misinterpretation of what 360p is because **it refers to the horizontal resolution, not one of its dimensions**. This is not the only issue that arises with this and similar cases. The current cell phone cameras have their sensor arranged in the form factor that best resembles the cell phone screens, being the vertical dimension the predominant axis, as opposed to the horizontal predominance in TV and others (where the 360p comes from). Also, if we actually follow the definition of 360p as the horizontal resolution, then **the height of 640 being higher than 360 pixels would fit the requirements and should not be used as a reason for challenge**.



[Untitled drawing1260×669 46.8 KB](#)

In this set of images, if we stick to the "360p as the amount of horizontal lines" definition (the correct one), the same subject at the same distance, with the same camera but one is recorded in landscape but the other in portrait mode, image B would be accepted and image A would not. This is not an acceptable procedure to define the appropriateness of the image.

## ***Principle of common sense - most widely used encoding methods of digital video.***

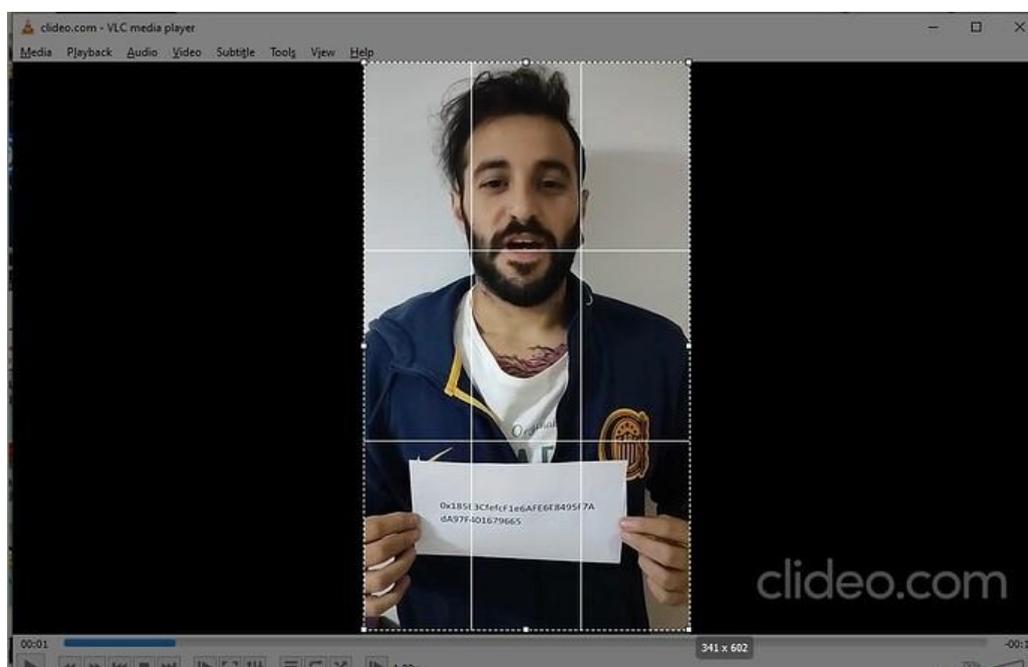
As delineated in the ISO/IEC 14496-10:2004(E) standard:

“As in previous video coding Recommendations and International Standards, a macroblock, consisting of a 16x16 block of luma samples and two corresponding blocks of chroma samples, is used as the basic processing unit of the video decoding process.”

So any image generated with the H264 High-efficiency coding standard, is comprised by blocks of 16x16 pixels. Whatsapp for android uses H.264 encoding standard and resamples an image of an aspect ratio of 16:9 to the amount of blocks that are divisible by 16. Since the number 360 is not divisible by 16, the codec crops 4 pixels at each side of the image. These four pixels per side have been used by opportunistic challengers claiming that there is a violation of the 360p rule, and I believe it is extremely arbitrary and not a real cut-off point given that the most widespread technology does not allow that a regular user can change the resolution.

*It is impossible to make a 16:9 video with exactly 640 by 360 pixels. Common user cannot decide this.*

Keeping this norm as it was created artifact methods to compensate this, usually using third party apps, and adding padding to the sides of a vertical video, actually reducing the effective resolution of a video that had more resolution in the original. Also, further re-encoding erodes original quality and then makes more difficult to analyse the video due to creation of image artifacts due to successive re-encoding.



[prueba11086x704 74.5 KB](#)

Here is a vertical video that probably had a good vertical resolution, but thinking that the 352 pixels of width would result in a challenge, it was edited so that it had 1080 pixels wide. In reality, the actual image now is around 340 by 600, a much worse resolution than what the original video was (see image).

### ***Expert opinion - YouTube***

The company that has set the world standard in video streaming technology, YouTube, acknowledges that a video with the challenged size is 360p. I invite the jurors to do this by themselves: upload a video with the same size and see which standard it fits into.