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**Reading matter:**

Chapter 1 - Video formation, perception, and representation, Video processing and communications

**Inspirational thoughts:**

Be honest, this chapter is really blown my mind. At first, I was not expecting that the image/video compression technologies have to consider luminance and chrominance show different result on Human vision models and know how the retina works. And how the human vision model comes from, result from many human experiments, is also inspired me a lot. This intuitive, time exhausting and brutal method did a quite nice job on meeting a high proportion of viewers' subjective feeling, although might not meet every viewer's subjective feeling, which is a major factor of making this technology commercialized. I remember there is a saying in industry: "As Stupid As Possible", the more experiments I make the more agreement I get. And how the Human vision models come from confirms the credibility of the saying might be true.

Another technique inspired me a lot is Interlaced Scan, each frame is scanned in two fields and each field contains half the number of lines in a frame, which can at least double the original frame-rate without effect too many on human feelings (when the frame rate is higher enough, human's eyes can not identify too many different). As we can imagine that using progressive technique could provide a better quality on presenting videos but have to rely on hardware capabilities, so using interlace scan technique might reduce some quality but the reliance on hardware capabilities might also become smaller which might reduce the cost on hardware, one of the important factors makes commercialized product more competitive.

The inspirations above remind me that I should give any intuitive ideas a chance when finding solutions for a problem, and this is also accord to my experiences.