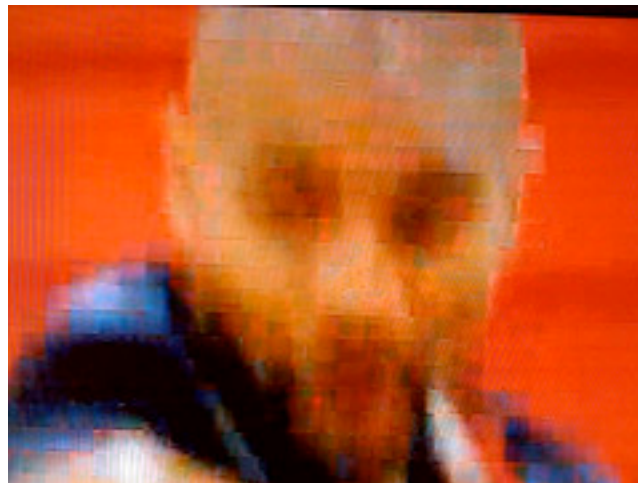


Comcast “High Definition” Isn’t

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Comcast HDTV customer? You’re not getting anything close to what you’re paying for.

While [many](#) customers have a [variety](#) of [issues](#) with [Comcast](#), I think their most egregious failure to deliver customer value [mostly](#) boils down to downright rotten picture quality.



What does “High Definition” really mean? At the barest minimum it means “better than standard definition,” also known as SDTV. It would also be reasonable to insist that it look better than enhanced definition, also known as [EDTV](#). What you get from Comcast does not look consistently better than either SDTV or EDTV, as I demonstrate below.

Standard definition television, according to the NTSC standard, produces a picture which gets its detail from approximately [410](#) horizontal lines (more lines means more detail or “definition”). You would be justifiably thrilled if the signal from Comcast maxed out your shiny new 1080p TV (1,080 lines, for maximum detail) the same way your PS3 does when you watch the [Cars Blu-Ray](#) with your kids. Since Comcast clearly and obviously falls short of this “perfect” standard, perhaps you would settle for a picture that was merely “consistently substantially better” than SDTV.

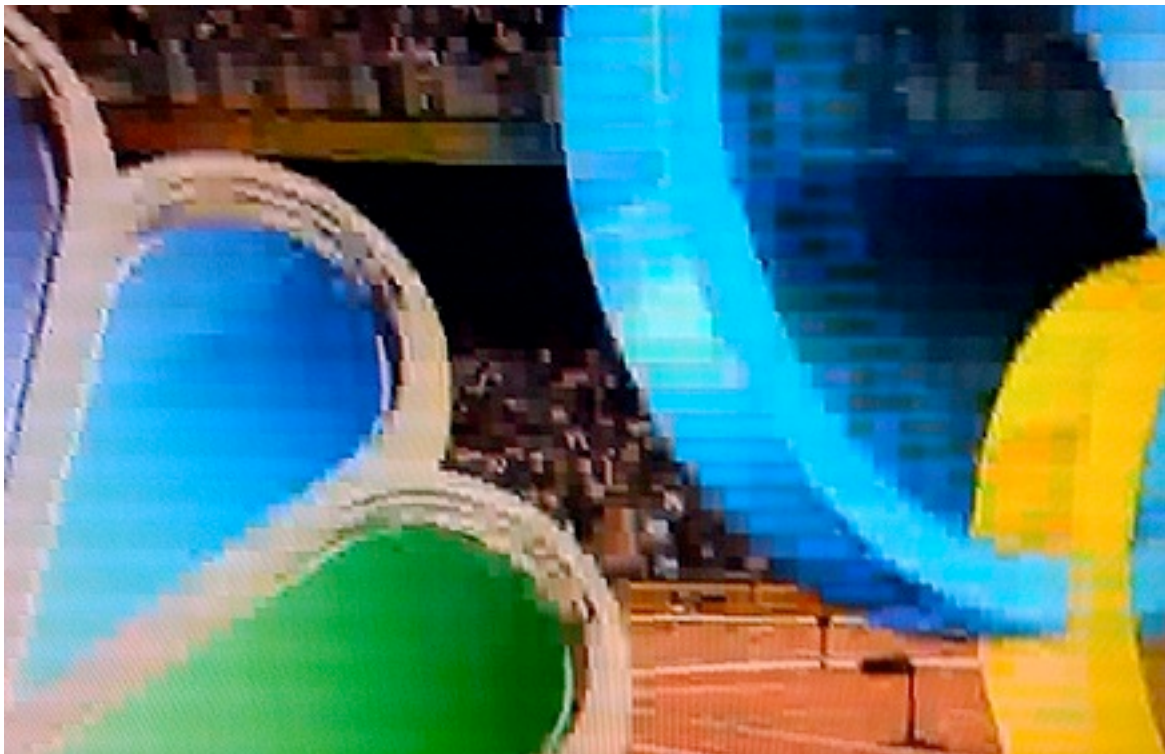
It’s not.

Take the Summer Olympics. Here’s a typical example: it’s a picture of my TV, taken using my cameraphone during one of those fancy computer-generated NBC transitions. The picture below this sentence has only 253 lines, and yet [compression artifacts](#) are clearly visible.



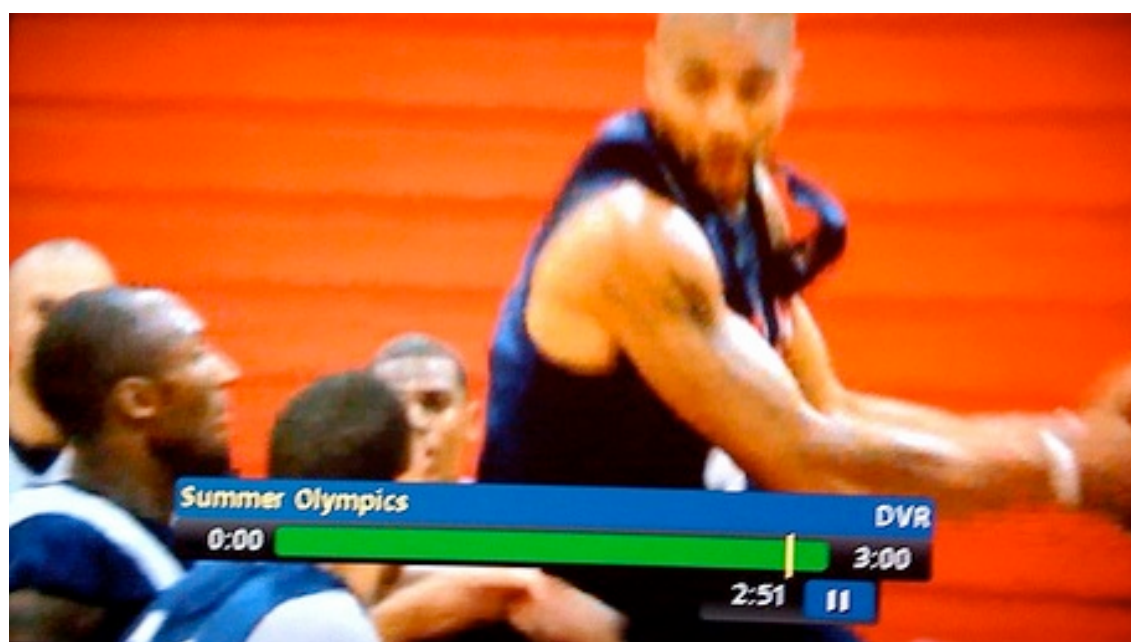
Severe detail problems are apparent, even when the picture is scaled all the way down to 253 horizontal lines as above. 253 is definitely less than 410 (STDV), and far less than the 720 or 1,080 necessary to qualify as "high definition. Therefore Comcast HD, isn't.

Don't see the artifacts? Look closer:

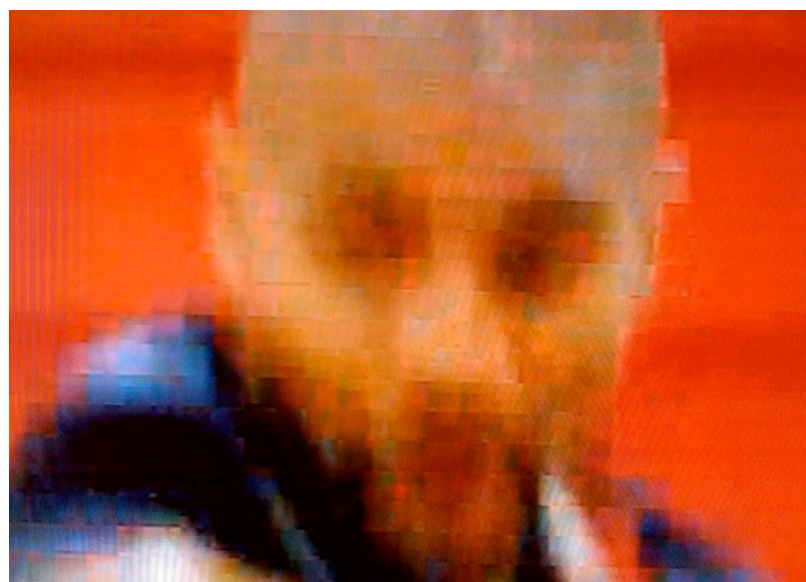


How many millions of dollars is NBC spending in order to create high definition Olympic coverage, only to have the work of thousands of NBC camera operators, engineers, producers and technicians corrupted by the middlemen who deliver their content along its last few miles?

Here's another example, taken from a Nike commercial presented in "high definition." I wonder how much extra Nike paid to NBC for us to see this level of clarity and detail?



It isn't that my cameraphone is blurry—it actually looked like that. And you can be sure that they weren't going for this mosaic effect on purpose.



Are we asking too much? Not according to Comcast's marketing people, who posted this helpful information [on the Comcast website](#).

HDTV images are as detailed as a high-resolution photograph. It is like looking through a window. When watching a TV program in HD, you will be amazed at the sharpness of the picture. You can even pick up the specks of different colors in an actor's eyes, or see individual sweat drops on a football player—details you could never see through regular television.

Watching the Olympics this past couple of weeks, I'm not "amazed." I'm mad about paying a ridiculous sum for a broken promise. How about you?

Am I more sensitive to this problem than most? It's possible: I once ran a company which made its money converting video content for delivery over constrained digital infrastructure, so I'm not in the dark about what's causing the quality problems which [others have already reported](#). I'm well aware that artifacts like those shown above are only obvious when there's a lot of motion on the screen, especially when backgrounds are detailed, moving, or both. And I understand perfectly that MPEG-2 doesn't do well with high levels of detail and motion at 1920×1080 when encoded in real time at bitrates under 35 Mbps (reliable accounts say we're getting streams of little more than a third that much in any given HD channel from Comcast).

Only I couldn't care less about such nerdy nuance, and neither should you: what we're seeing simply isn't HDTV.

What's going on here is that Comcast wants to win the "we offer more HD channels" competitive battle more than it wants to win the "our HD looks better than their HD" battle, and they have limited bandwidth with which to deliver all those channels into your home. Think of cable infrastructure as a [series of tubes](#) if you like, and you can only stuff so much information through that infrastructure. By using more aggressive compression in the distribution of their content, Comcast is trying to find the right balance between "how many HD channels can we carry" and "how good will our HD channels look." In my opinion, they [chose poorly](#).

In other news, Comcast profits are [up 7%](#). From a shareholder perspective, their inferior product, monopoly market access and inadequate customer support are all delivering splendid results. For how long will they continue to get away with it?