WHAT IS CLAIMED IS:

1. An encoder, the encoder comprising circuitry configured to:
receive a video frame;
partition the video frame into blocks;
determine a first area within the video frame including a first grouping of a first subset of the blocks;
determine a first average measure of information of the first area; and
encode the video frame, the encoding including controlling, using the first average measure of information of the first area, a quantization parameter.

2. The encoder of claim 1, wherein a block size of the blocks is 4 x 4.

3. The encoder of claim 1 further configured to receive semantic information, wherein the first grouping is determined based on the received semantic information.

4. The encoder of claim 4, wherein the semantic information includes data characterizing a facial detection.

5. The encoder of claim 1, wherein the first average measure of information is determined by calculating a sum of a plurality of information measures of the plurality of blocks.

6. The encoder of claim 5, wherein the first average measure of information is further determined by multiplying the sum by a significance coefficient.

7. The encoder of claim 6, wherein the significance coefficient is determined based on a characteristic of the first area.

8. The encoder of claim 1, wherein the controlling includes determining a first quantization size based on the first measure of information.

9. The encoder of claim 1 further comprising:
a transform and quantization processor;
an inverse quantization and inverse transformation processor;
an in loop filter;
a decoder picture buffer;
a motion estimation and compensation processor; and
an intra prediction processor.

10. The encoder of claim 1 further configured to:

~~determine a second area within the video frame including a second grouping of a second subset of the blocks; and~~

~~determine a second average measure of information of the second area, wherein the controlling is further based on the second average measure of information of the second area.~~

~~11.~~1. A method of video signal processing, in a video processing system having an inverse quantizer and inverse transform processor, an in loop filter, and a decoded picture buffer, the method comprising:

receiving~~, by an encoder, a video frame~~ a video signal using the inverse quantizer, the video signal including a picture comprising quantized pixels;

partitioning the picture ~~video frame~~ into a plurality of blocks;

determining a first area within the picture ~~video frame~~ including a first grouping of a first subset of the blocks having a first quantization parameter which has been controlled by an encoder based on a first average measure of information of the first subset of blocks, the first average measure of information being a first average measure of spatial activity determined using a discrete cosine transform of the blocks in the first subset; and

determine a second region comprising a second subset of blocks and having a second quantization parameter which has been controlled by the encoder based on a second average measure of information of the second plurality of blocks.

~~determining .a first average measure of information of the first area; and~~

~~encoding the video frame, the encoding including controlling, using the first average measure of information of the first area, a quantization parameter.~~

~~12.~~2. The method of claim ~~1~~1, wherein a block size of the blocks is 4 x 4.

~~13. The method of claim 11, further comprising receiving semantic information, wherein the first grouping is determined based on the received semantic information.~~

~~14. The method of claim 13, wherein the semantic information includes data characterizing a facial detection.~~

~~15.~~3. The method of claim ~~1~~1, wherein the first average measure of information is determined by calculating a sum a plurality of information measures of the plurality of blocks.

~~16.~~4. The method of claim 3~~16~~, wherein the first average measure of information is further determined by multiplying the sum by a significance coefficient.

~~17.~~5. The method of claim 4~~17~~, wherein the significance coefficient is determined based on a characteristic of the first area.

~~18.~~6. The method of claim ~~1~~1, wherein the ~~controlling includes determining a~~ first quantization size is based on the first measure of information.

7. A video signal processor, the video signal processor comprising:

an inverse quantizer;

an inverse transform processor;

an in-loop filter; and

a decoded picture buffer;

wherein the video signal processor is configured to receive, using the inverse quantizer, a video signal including a picture comprising quantized pixels, wherein the picture includes:

a first region comprising a first plurality of blocks and having a first quantization parameter which has been controlled by an encoder based on a first average measure of information of the first plurality of blocks, the first average measure of information being a first average measure of spatial activity determined using a discrete cosine transform of the blocks in the first plurality; and

a second region comprising a second plurality of blocks and having a second quantization parameter which has been controlled by the encoder based on a second average measure of information of the second plurality of blocks.

~~19. The method of claim 11, the encoder comprising:~~

~~a transform and quantization processor;~~

~~an inverse quantization and inverse transformation processor;~~

~~an in loop filter;~~

~~a decoder picture buffer;~~

~~a motion estimation and compensation processor; and~~

~~an intra prediction processor.~~

~~20. The method of claim 11 further comprising:~~

~~determining a second area within the video frame including a second grouping of a second subset of the blocks; and~~

~~determining a second average measure of information of the second area, wherein the controlling is further based on the second average measure of information of the second area.~~