This paper introduces a concept called Quasi-Hamming distance or QHD for short. Quasi-Hamming distances use the Hamming distance proposed by Richard Hamming in 1950. The Hamming distance is a measure of the number of bit positions in which two code words differ. The minimal distance of these code words are referred to as the code’s minimal Hamming distance.

There are two main strategies for handling these errors that occur when transmitted. The first one is an automated error detection, which detects an error and informs the receiver. The second one is an automated correction which notices the error and attempts to fix it automatically. The authors call the automated error detection “conscious effort” and they refer to automated correction as “unconscious effort”. These are named as implied by the words. The first one takes a users conscious decision to fix the problem where the second on is fixed automatically, needing no conscious decision to be made by the user.

From these foundations and using a focus group of twenty people, they tested out their Quasi-Hamming distance to see if their framework was working as intended. They did this by showing them glyphs at different sizes, colors, etc and if the algorithm was effective in keeping the glyphs discernible to the human eye as theorized. Meaning that if they get too small, you cant tell them apart with the naked eye. They then implemented these methods and framework with a practical application, file system visualization. The used it to visualize a file system and files on DropBox, which was by far the neatest part of the paper. Although I did not find the paper too interesting, the Hamming distance and file system visualization is pretty neat.