6600 Intelligent Systems
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Mcculloch and Pitts Paper

The problem that this paper was trying to solve was to quantify and explain how the brain works and learns. This was accomplished by first defining what a neuron in the brain does. It receives and sends pulses from other neurons. This net of neurons can take input and then produce an output. Mcculloch and Pitts then proceed to explain and theorize different functions that these neurons may be following to accomplish the task of turning input into output. They also theorize that the method in which the neurons convert input to output must be malleable, this makes us capable of learning. This is referred to as nets with circles. Where the output can be used to alter neurons and make different results. In a similar fashion, the paper talks about "all or nothing". This refers to the fact that a change in one neuron can have a change on the total output. All neurons help determine the results.

What I found interesting in this paper was the way it described the brain and learning. How it is a net of circles and every input will be constantly altering and changing the neurons as we learn. In the conclusion they state that our nets are undefined. As proof of this, there are hallucinations, delusions, confusions, and disorientations all showing that the net is malleable and altering as time goes on.

The part that was the most difficult for me was the jargon. There were a lot of terms and references that I simply did not understand. This made it very difficult to comprehend the paper and I had to reread parts over again to begin to understand them. Along with that, the explanation of the functions and their purposes were hard to understand.

This seems to be the very complicated and biological side of what we are currently learning in class. Where neurons and outputs are being created and altering each other. Having thought and brain activity simplified down to logical pulses infers that the brain can be simulated on a small scale where a program can learn from inputs alone. I want to assume that this is where the first idea came to make a program think for its self, or where someone found inspiration that made it possible. That is why I believe that it is the first paper we are reading for this class.