On Intelligence Checklist

Paul Erdos: The simplest mathematical proogs already exist in some thereal book and a mathematician’s job was to find them.

Patience: When you don’t know how to proceed, often the best strategy is to make no changes until your options become clear.”

Feedback: The brain is saturated with feedback connections.

Pattern Recognition: To retrieve a pattern in your memory you must provide the pattern you want to retrieve. Fortunately you don’t have to have the entire pattern to retrieve it, only a portion. Patterns are stored in a hierarchy.

Simplicity: The best solutions to scientific problems are simple and elegant.

Kludge: Programs written without foresight.

Artificial Intelligence: Machines won’t be to able to do what humans do because they don’t have sexual urges, hunger, pulse, muscles, emotions. Humans are much more than intelligent machines.

Saccade: Your eye fixates on one point and jumps to another. Happens about three times a second. Vision is more like a song than a painting.

Senses: There are way more than five senses (motion, color, luminance, pressure, temperature, pain, vibration, joint sensors, gut, inner ear).

Stored Intelligence: The brain doesn’t just compute problems, it retrieves the answers from memory it stored a long time ago.

Hear What We Want to Hear: Our brains fill in what they miss with what they expect to hear.

Variation: Computers are terrible at handling variation.

Prediction: Is best when you have multiple sensors providing information. Prediction is when people fit existing ideas into new frameworks.

Intelligence: Capacity to remember and predict patterns in the world.

Sequencing: Collapsing patterns into named objects. You don’t need to know every detail but you do need to know if a change occurs in the sequence.

Context: Information and language cannot be understood without context.

Cortex: The brain has layers that information passes through to make sense and to create what you need.

Columns: The brain has columns in it to carry out different tasks or storage. Many can be activated at once but eventually the brain picks a winner.

Parallel: Thinking, predicting, and doing all happen at the same time, not one at a time.

Hebbian Learning: Two neurons that fire at the same time wire together.

Age: The more you know the less you remember. Once you are exposed to the same non-important things over and over, you are less likely to remember the details of it. This is why children can easily remember trivial things such as signs because it is a novel experience to them.

Language: Through language one human can evoke memories and create new juxtapositions of mental objects in another human.

Creativity: Taking something and applying it to a different field or situation. The way to be more creative is to assume that there is an answer to the problem and then letting your mind wander.

Experts: Recognizing patterns on patterns.

In-betweeners: Like a telephone network, there is not a single connection from every neuron to another, the connections pass through high capacity lines and then spread out at the end.