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The Technology of the Wheel

The Technological device that I will be writing about is the wheel. The wheel was originally thought up in Mesopotamia approximately 5,500 years ago. These wheels are called potters wheels. They were mechanically driven by the user or potter. The energy for the system originally comes from the sun’s energy. Then it makes its way into the users food and then the person converts to mechanical energy. Now there are electrically powered potters wheels. The energy from these ultimately comes from a power plant which is given to the grid and run into the houses. Then a potters wheel could be ran. Wheel can also be used for many other things. They are most commonly known for being used on carriages and wagons. Wheels are usually pretty close to being a perfect circle so they can roll easier. The Trojan horse was rolled into troy on wheels. One of the earliest widespread uses of wheels can be seen in the vast expanse of the Roman Road system. A long circular rod was used as an axle to connect the 2 wheels. The length of this rod was made standard is even used in the wheels for train tracks today. The wheels on a train are extremely smooth and have a very low coefficient of friction. That makes is easier for the train car to move the weight. The wheel uses static friction to move objects with minimal force. This is a revolutionary technology because all other objects required enough energy to overcome static and then continue to overcome kinetic forces. The wheel lowers the energy required to move objects pass each other in the macro world. Different wheels are easier to move. Angular Acceleration is actually what allows wheels to start rolling. Ideally you want wheels to have the smallest possible angular acceleration because it takes less torque to move. The formula for this varies but is related to the radius and mass of the wheel. Gears are also the brother of wheels. They are essentially wheels with spikes that push other spikes. Gears are used for a number of things. Most notably or the earliest use was in clocks. A complex set of gears could be used to move hands on a clock precisely. Currently gears are most known for being used in cars. The transmission in a car makes extensive use of gears and rotating circular objects. The car obviously uses wheels to move. The energy that moves the wheels comes from the chemical energy in the gas tank. The wheel is wrapped in a tire. The tire allows the car to stick to the road. The tire does what he original wheels did but better. It increases the coefficient of kinetic friction between the object that is moving and the road or ground. Our entire society is structured around the use of the wheel and is fundamental to a properly functioning society. If a tire pops you can be late to work. If you have worn out tires you can have a wreck. If it becomes a problem then eventually you will be fired. One of the best ways to crumble modern society is to disable all functioning wheels. It is even more fundamental than today's computers.

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