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Mind and brain are the target areas for intense research and innovation in recent years. Drivers and motivations are several and varied. They include a) priority allocation of research funds by the governments and donors, b) more number of people are diagnosed with mental disorders and diseases thus needing cost effective solutions, c) people are aware and more open about them, thus seeking better solutions for improved quality of living, d) innovations to alleviate growing burden on economies, families and individuals, e) availability of new scientific tools for studying complex mechanisms of brain and mind, f) demonstration of functional connection between the brain and external devices such as robotic limbs, exoskeletons and computers, g) biomedical as well as digital technology companies eyeing on the opportunities to develop new products and services based on the sophisticated knowledge of neuronal mechanisms, and h) humans' continued quest to understand the elusive mind which defines and distinguishes them.

Mind supervenes brain, and various mental functions are emergent of functioning brain, nervous system and other body systems. Brain is an integral part of the nervous system which also comprises spinal cord and peripheral nerves. Neurons are the basic cells of nervous system. Information exchange between mind and external senses is coordinated via the nervous system. When stimulated neurons transmit signals and information by means of changes in chemicals and electrical charges. A good coordination between nervous system and immune system and endocrine system is necessary for a well-functioning body. Brain plays central role in the nervous system. Human brain contains over hundred billion neurons forming over trillions of junctions or synapses. Brain communications which underpin attitude, thoughts, senses, emotions, responses and movements are directed by synchronized electrical pulses emanating from masses of neurons in different structures of the brain. Electrical impulses transmitted across brain tissues aka brainwaves are categorized based on their frequencies or cycles per second, Hz. Different frequencies of brain waves are associated with specific states of mind and mental functions. Brainwave patterns can be picked up by techniques such as electroencephalogram, EEG and functional magnetic resonance imaging, fMRI. Efforts were made to digitally reconstruct the object perceived by the brain by tapping the brainwaves. More recently, engineers are mapping brain waves via digital technologies to recreate the dream experienced by a person. Thus deeper understanding of brain allow us to demystify mind.

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