Each Illumina HiSEQ generates 10^8 reads each of ~100 Nucleotides long each day. Each Nucleotide is 2 bits. It takes 100-10000 cores to use Blast to compare with central database in one day (depending on hashing algorithm trading compute performance v. accuracy). Each read is distilled from a coverage of 50-100 times as much data including duplicates.

Take a unit as Human Genome with 3\*10^9 Nucleotides or 6\*10^9 bits.

Each day one Illumina does 10^10 Nucleotides, 2\*10^10 bits and 3.3 Human genome units per day. Today there are ~1000 Illuminas (500 in USA) capable of 3300 Human genomes per day; 2\*10^13 bits per day and ~ 7 Petabits of data per year (700 Petabits including coverage per year)

Measuring genome of every new born is ~11000 Human genomes per day for USA and 200,000 Human genomes per day for world. Doing on an ongoing basis – say 50 times in lifetime of every human is 5\*10^6 genomes measured per day for world. This is 30 petabits per day or 10 Exabits per year

It requires power equivalent to 1.5 million present day Illuminas to measure Human genomic data and 1.5\*10^8 to 1.5\*10^10 continuously running present day cores to perform a simple Blast analysis