

BIG DATA FRAMEWORKS

CSE6701

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- We are fast approaching a new era of **the Data age**
- From autonomous cars to humanoid robots and from intelligent personal assistants to smart home devices, the world around us is undergoing a fundamental change, transforming the way we live, work, and play.



- The average connected person anywhere in the world will interact with connected devices nearly **4,800 times per day** → basically one interaction every 18 seconds ...

- Data has become critical to all aspects of human life over the course of the past 30 years
- it's changed how we're educated and entertained, and it informs the way we experience people, business, and the wider world around us.
- It is the **lifeblood** of our rapidly growing digital existence
- This digital existence, as defined by the sum of all data **created**, **captured** and **replicated** on our planet in any given year is growing rapidly, and we call it the **global datasphere**
- It's not easy to measure the total volume of data stored electronically, but an IDC estimate put the size of the datasphere at 16.1ZB in 2016 and is forecasting a tenfold growth by 2025 to 163ZB.