

Data Singularity

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Humans have dealt with various types of singularity over the centuries. Currently there is a lot of talk about technological singularity. However, there is another one that has escaped the notice of the popular press and tech gurus. This is the extraordinary acceleration in the growth rate of digital data. One of the reasons for this increase is the digitization of virtually all communications and records. This rapid growth is evidenced by the fact that the sum total of data produced in the last year or two would exceed all data that existed in digital form prior to that time. The 21st century was heralded as the age of information and we are living in the era of Big Data. It is only now that we are beginning to understand its opportunities, pitfalls and challenges.

Just as the Industrial Revolution created an entirely new urban way of life for what is now more than half of the population of the planet, the Big Data revolution will dramatically alter the ways in which we interact, not only with each other but with all of the institutions which mediate our lives.

This talk underlines some of these emerging promises and threats, as well as their implications for researchers and scientists not only in the database and computing science community but in many other disciplines.