WHY IS DATA SUCH A BIG DEAL?

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BEFORE WE PLUNGE INTO DISCUSSING DATA - LET'S GO BACK IN TIME AND DISCUSS COMPUTING PERFORMANCE
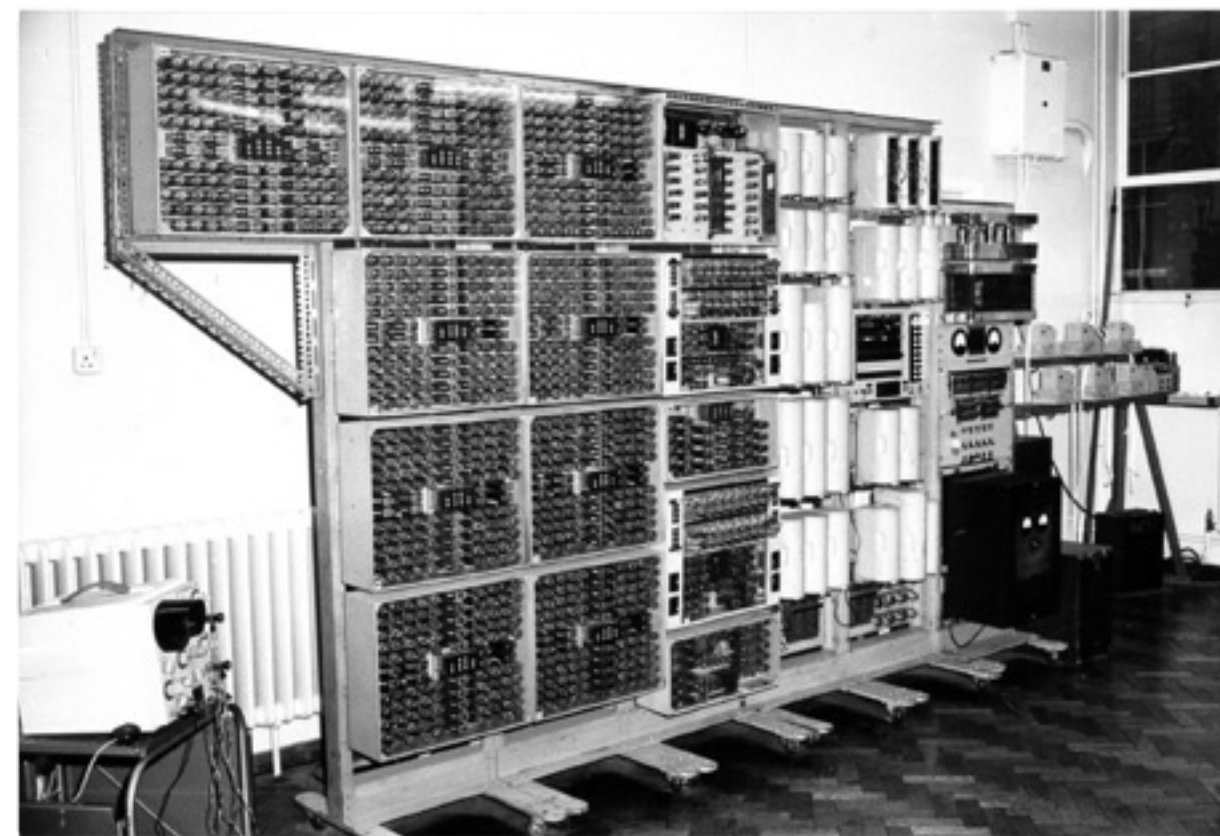
MOORE'S LAW STATED THAT THE NUMBER OF CHIPS ON A SINGLE BOARD OR INTEGRATED CIRCUIT DOUBLES EVERY 2 YEARS

AND THIS HAS PROVED TRUE FOR MANY MANY DECADES

WHY IS DATA SUCH A BIG DEAL?

MOORE'S LAW STATED THAT THE NUMBER OF CHIPS ON A SINGLE BOARD OR INTEGRATED CIRCUIT DOUBLES EVERY 2 YEARS

SO WHY IS THIS IMPORTANT?

THIS IS DIRECTLY CORRELATED TO THE FACT THAT THE COMPUTING POWER IN A SMART PHONE IS GREATER THAN IN THE BIGGEST MAINFRAME OF 50 YEARS AGO

THE EXPLOSION OF COMPUTING POWER HAS MADE POSSIBLE STUFF ONE COULD NEVER IMAGINE EARLIER

WHY IS DATA SUCH A BIG DEAL?

NOW THAT WE HAVE ALL THIS COMPUTING POWER AT OUR FINGERTIPS - THE WORLD IS MOVING TO A PLACE WHERE WE'RE CONSTANTLY ONLINE AND DOING SOMETHING

COMPANIES HAVE FIGURED OUT THAT IF THEY USE THE INFORMATION GENERATED FROM THE STUFF WE DO ONLINE - THERE IS A HUGE OPPORTUNITY TO GIVE US THE THINGS WE NEED

WITHOUT US ASKING FOR IT!

WHY IS DATA SUCH A BIG DEAL?

BY CONSTANTLY ANALYZING THE DATA WE GENERATE THROUGH ALL OUR ONLINE ACTIVITIES

COMPANIES HAVE FIGURED OUT THAT IF THEY USE THE INFORMATION GENERATED FROM THE STUFF WE DO ONLINE - THERE IS A HUGE OPPORTUNITY TO GIVE US THE THINGS WE NEED

EVERY CLICK, EVERY VIEW, EVERY ACTION IS A SIGNAL

HOW?

AND IF YOU'RE SMART ABOUT ANALYZING THESE SIGNALS THERE IS POTENTIAL TO BUILD REALLY COOL STUFF WHICH MAKES A LOT OF MONEY:-)

WHY IS DATA SUCH A BIG DEAL?

EVERY CLICK, EVERY VIEW, EVERY ACTION IS A SIGNAL

ALL YOUR ACTIVITY ON FACEBOOK, GOOGLE SEARCH, WHATSAPP EVERYTHING IS TRACKED AND OPEN TO ANALYSIS

ANY WEBSITE YOU USE, TRACKS HOW EXACTLY TO INTERACT WITH IT

KIND OF SCARY - BUT THESE LEAD TO GREAT USER EXPERIENCES

HOW DOES FACEBOOK KNOW TO POP UP THE MOST INTERESTING POSTS FOR YOU?

HOW IS GOOGLE NOW ABLE TO PERSONALIZE YOUR SEARCH?

WHY IS DATA SUCH A BIG DEAL?

EVERY CLICK, EVERY VIEW, EVERY ACTION IS A SIGNAL

THE AMOUNT OF DATA GENERATED FROM PEOPLE IS EXPECTED TO GROW 50X BETWEEN 2010 AND 2020 - IN JUST 10 YEARS!

2010: 800EB   2020: 40000EB

1EB = 1000000000000000000 BYTES

WHY IS DATA SUCH A BIG DEAL?

HOW TO STORE IT

KNOW HOW TO DEAL WITH THIS DATA AND GET SOMETHING USEFUL FROM THIS IS THE KEY TO BUILDING SOMETHING BIG

HOW TO QUERY IT

HOW TO GET INSIGHTS FROM IT

HOW TO ENSURE DATA STAYS UPDATED

HOW TO ENSURE THE DATA IS NOT CORRUPTED

HOW TO DEAL WITH NEW INFORMATION ALONG WITH THE OLD

HOW TO DO ALL THIS FAST

WHY IS DATA SUCH A BIG DEAL?

IT'S NOT JUST ABOUT COOL PRODUCTS

OR LIMITED TO VERY BIG TECH COMPANIES

DATA DRIVEN BUSINESS DECISIONS ARE THE KEY TO FIGURING OUT TRENDS AND THE FUTURE DIRECTION EVEN FOR OLD SCHOOL BUSINESSES LIKE RESTAURANTS, LOGISTICS COMPANIES, YOU NAME IT

DATA WILL TELL YOU IF THE THE MOVES YOU MADE IN THE PAST ARE WORKING OUT FOR YOU

DATA MIGHT GIVE YOU IDEAS WHICH YOU'VE NOT THOUGHT OF BEFORE

WHY IS DATA SUCH A BIG DEAL?

BIG DATA IS A MAJOR BUZZ WORD NOWADAYS

THERE ARE A WHOLE BUNCH OF TECHNOLOGIES WHICH HELP WORKING WITH THESE HUGE DATA SETS

HOWEVER TO REALLY WORK WITH DATA WELL YOU WANT TO START WITH A STRONG FOUNDATION

WE START BY LEARNING HOW TO WORK WITH DATABASES

DATABASES HAVE BEEN AROUND A LONG TIME BUT HAVE BECOME MORE IMPORTANT THAN EVER

PRETTY LARGE DATA SETS ARE STORED USING RELATIONAL DATABASES

WHY IS DATA SUCH A BIG DEAL?

THIS CLASS FOCUSES ON CORE DATABASE CONCEPTS

IT'S A STEPPING STONE TO DEALING WITH LARGER AND MORE COMPLICATED DATA - DOING REAL BIG DATA ANALYSIS

IT'S THE CRUCIAL CORE SKILL FOR THE WORLD OF DATA ANALYTICS