

FINANCIAL INNOVATIONS & EMERGING ISSUES SEMINAR

Big data – Implications on Finance

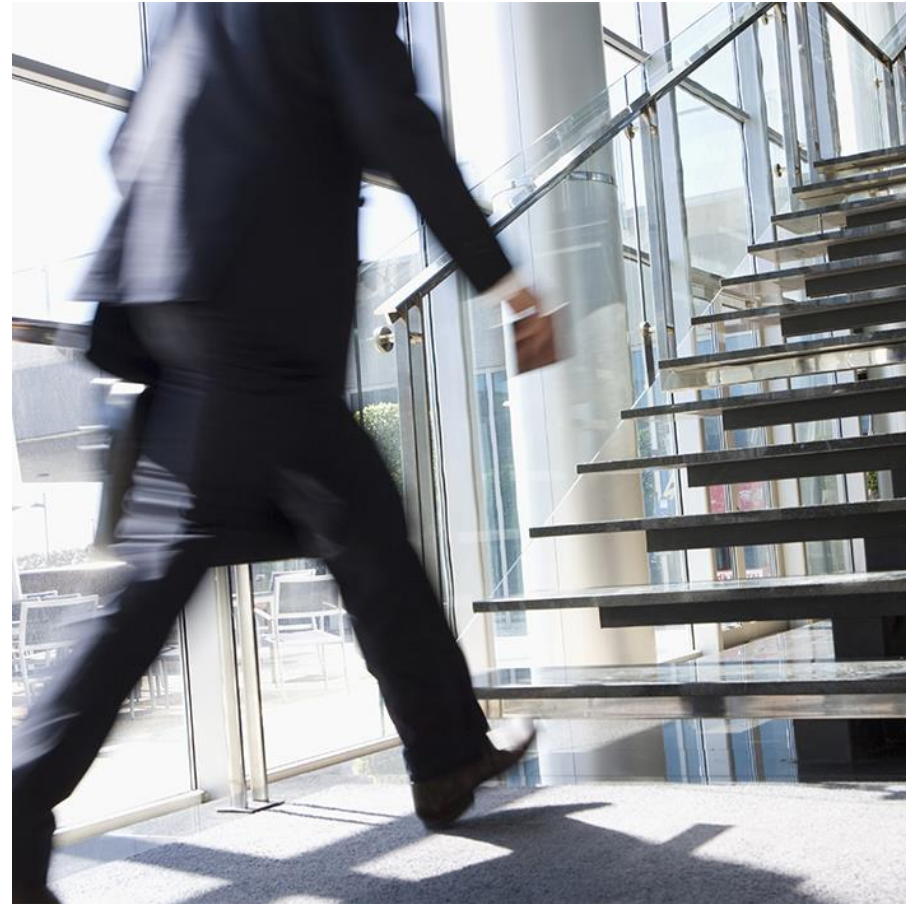
Presentation by

Hesham Abdelhay

ACCA ,CAT ,DipIFR ,MBA

Presentation agenda

- Introduction of big data
- What is big data ?
- Sources of big data
- What Is Hadoop ?
- How does big data impact accountants ?
- Questions ?





Think Ahead

Introduction to big data



INTRODUCTION TO BIG DATA

- We are living in a world driven by data
- Data is revolutionising businesses
- Businesses both big and small are using big data
- By current year (2020) there will be 4,300% increase in annual data generated by individuals and companies.
- Data produced by individuals and firms:
 - 2003 5bn gigabytes
 - 2018 8.8 zettabytes (8.8 trillion gigabytes)
 - By current year (2020) 44zb (44 trillion gigabytes)
- Success will depend on how effectively companies use big data analytics

What is big data ?

What is big data ?

- Big data is 'Extremely large collections of data (data sets) that may be analysed to reveal patterns, trends, and associations, especially relating to human behaviour and interactions.'
- In 2001 Doug Laney, an analyst with Gartner (a large US IT consultancy company) stated that big data has the following characteristics, known as the 3Vs:
 - ☐ Volume
 - ☐ Variety
 - ☐ Velocity

Volume

- Data is being created at an incredible rate as mentioned earlier, By current year (2020) 44zb (44 trillion gigabytes).
- So, the big data is a very large amount of data, more than can be easily handled by a single computer, spreadsheet or conventional database system.

Variety

- Big data includes both Structured and Unstructured data
- Structured data arranged by columns and rows format.
- Unstructured data came in different forms and shapes i.e. Text, emails, log files, search terms includes words, numbers, video and audio.

Velocity

- Information must be provided quickly enough to be of use in decision-making and performance management.

Other Vs added recently

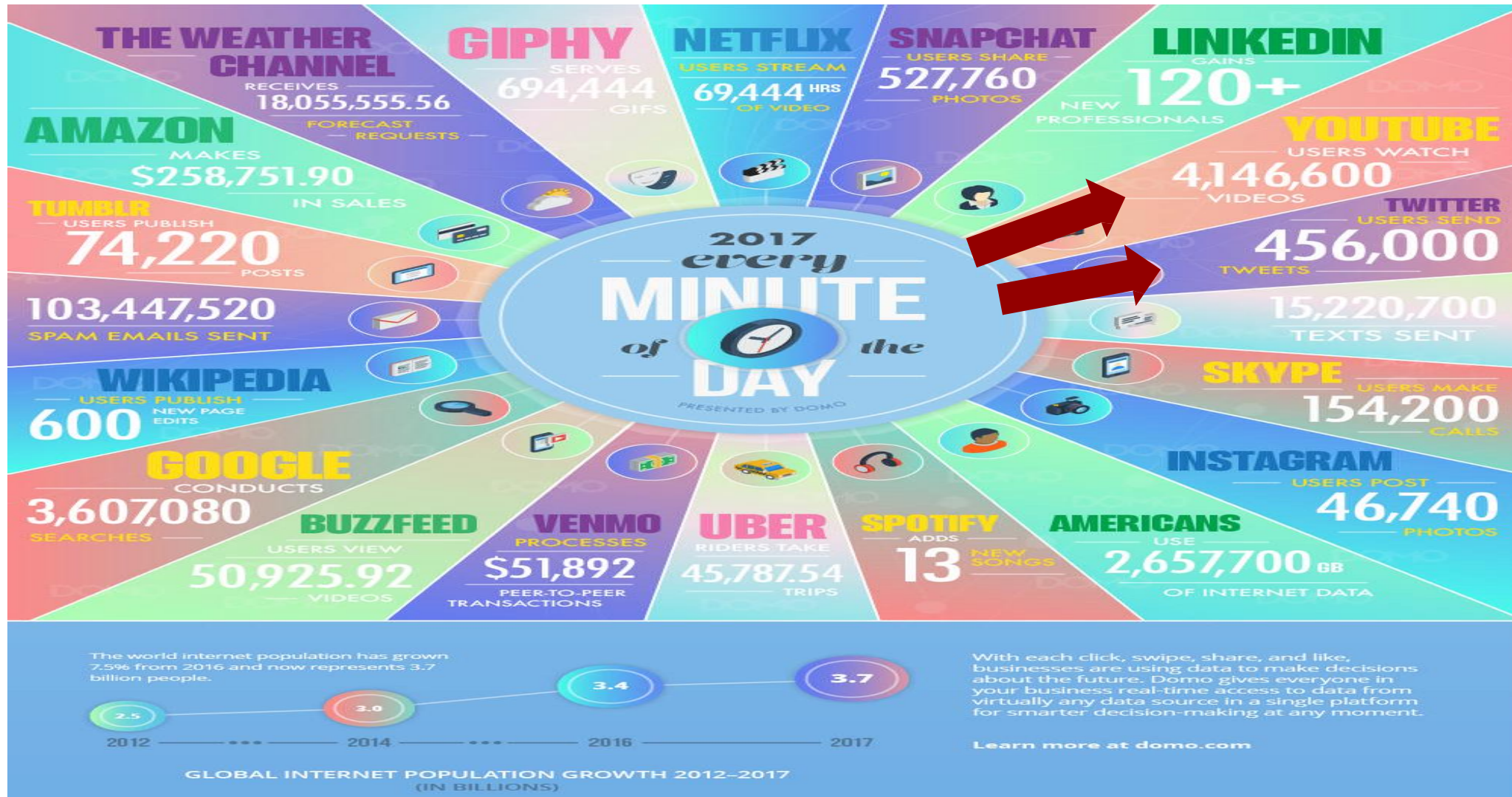
Veracity

- Questioning the accuracy of the data, can we believe the data, is it correct ?

Value

- Questioning the ability to achieve greater value through using big data analytics for the organization (cost-benefit analysis).

Sources of big data



Example of big data application

https://www.csc2.ncsu.edu/faculty/healey/tweet_viz/tweet_app/

What Is Hadoop ?



Hadoop

- Open source set of programs and procedures, free to modify and use.

4 modules

- Distributed File System (DFS) – allows data to be stored in an easily accessible format across a large number of devices.
- MapReduce – reading data from the database, putting into a format suitable for analysis (map) and performing mathematical operations (reduce).
- Hadoop Common – provides the tools needed for the user's computer systems to read data stored under the Hadoop file system.
- YARN – manages resources of the systems storing the data and running the analysis.



Think Ahead

How does big data
impact
accountants?



How does big data impact accountants?

Skills pivot

- We'll need to learn some new technologies
- Technology exists to improve and make easier what we do

Stand out

- Working with new technologies will put us closer to our colleagues in other functions
- Empower the organization to take advantage of what new technology offers



Think Ahead

Questions?





Think Ahead

Thanks for your time

