



onrad

School of Entrepreneurship and Business

$$RSS = \sum_{i=1}^n \{Y_i - (\beta_0 + \beta_1 x_i)\}^2$$

Agenda

01

Personal
Introduction

02

Course
Introduction



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Background

Academic

- Associate Professor
- B.Sc. (Math, Physics), MBA (Marketing/Operations Research), PhD (Marketing & Operations Research, Queen's University)
- Research interests: Customer Switching Behavior in Services, Service Quality/Satisfaction/Delight, Word of Mouth Effects in Services, Relationship Marketing, Advertising Effectiveness

"Real World"

- SVP, Research & Methods, [comScore](#)
- Advertising Effectiveness, Advanced Analytics and Modeling
- Sole Inventor/Co-Inventor on 3 Patent Pending Technologies related to Evaluation of Online Advertising Effectiveness

Entrepreneur

- Principal, Friya Consulting
- Co-founder, [b3Intelligence](#) – data analytics firm
- [Shareablee](#) - Social Media Metrics
- Co-founder, [Influnetics](#) - currency of influence



What I bring to the table . . .

Academic Rigor



Real World Experience



GROUNDRED RELAVANCE

*Satisfaction/Loyalty Studies
AIU Studies
Advertising Effectiveness
Pricing Research
Competitive Positioning
Social Media*



BE 602

The course

will...

- Provide general understanding of statistical techniques used in solving business problems. Topics will include statistical methods such as:
 - Correlation and Regression Analyses
 - Factor and Cluster Analyses
 - Trade-off methods such as MaxDiff and Conjoint Analyses
- Provide a hands-on experience in solving for business problems using “real world” data sets and examples

will not...

- get into detailed statistical theory on the methods we are exploring in the course
- provide a learning environment for programming languages such as R and Python that are used for statistical analysis
- get into topics such as machine learning and AI
- get into analysis of unstructured data such as sentiment analyses and topic modelling

Requirements



NO textbooks are required, the in-class notes should be sufficient for the course requirements

IBM® SPSS® Statistics GradPack 28 ▲

SPSS

STATISTICS 28
GRADPACKS

IBM® SPSS® Statistics GradPack is a single-user license for active students that provides affordable access to statistical analysis, modeling and survey research tools. SPSS Statistics offers a range of advanced features, including ad-hoc analysis, hypothesis testing and reporting, to make it easier to access and manage data, select and perform analyses and share your results. The software can support your college coursework and enable you to develop the analytical skills that employers are looking for. It is available in three editions: basic, standard, premium.

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MSRP: ~~\$10,866.86~~

IBM® SPSS® Statistics Premium GradPack 28 for Windows and Mac (12-Months Rental)

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IBM® SPSS® Statistics Premium GradPack - includes:

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\$102.53

You save **\$3,528.75 (97%)**

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Tentative Course Schedule*

Tentative BE 602 Class Schedule*:

Class	Date	Contact Hours	Course/Class or Topic
Class #1	September 13 th , 2022	< 3.0	Introduction to the Course and Overview of Course and Requirements
Class #2	September 20 th , 2022	3.0	Introduction to data, types of data, descriptive analysis, comparing two populations
Class #3	September 27 th , 2022	3.0+	Hands-on data applications
Class #4	October 4 th , 2022	3.0	Correlation and Regressions Analysis
	October 11 th , 2022		NO CLASS – READING BREAK
Class #5	October 18 th , 2022	3.0	Correlation and Regressions Analysis Contd.
Class #6	October 25 th , 2022	3.0+	Hands-on data applications
Class #7	November 01 st , 2022	3.0	In-Class Mid-Term Exam
Class # 8	November 08 th , 2022	3.0	Grouping Data: Factor Analysis and Cluster Analysis
Class #9	November 15 th , 2022	3.0+	Hands-on data applications
Class #10	November 22 nd , 2022	3.0	Trade-Off Methods: Conjoint Analysis
Class#11	November 29 th , 2022	3.0+	Hands-on data applications
Class #12	December 06 th , 2022	3.0	In-class Final Exam

**Tentative implies that I will attempt to cover the material as scheduled, however, sometimes that may not be possible. In addition, I may assign extra reading material such as articles for discussion. I will advise of any changes that may occur.*

Course Assessment

Assessment

Item	Weight	Due
1. Class Participation (Team)	30%	Through Course
2. Mid-Term Exam (Individual)	25%	November 01 st , 2022
3. Final Exam (Individual)	45%	December 06 th , 2022

For a final grade to be awarded, each aspect of assessment above must be completed.

Contribution	Weight
Individual	70%
Team	30%

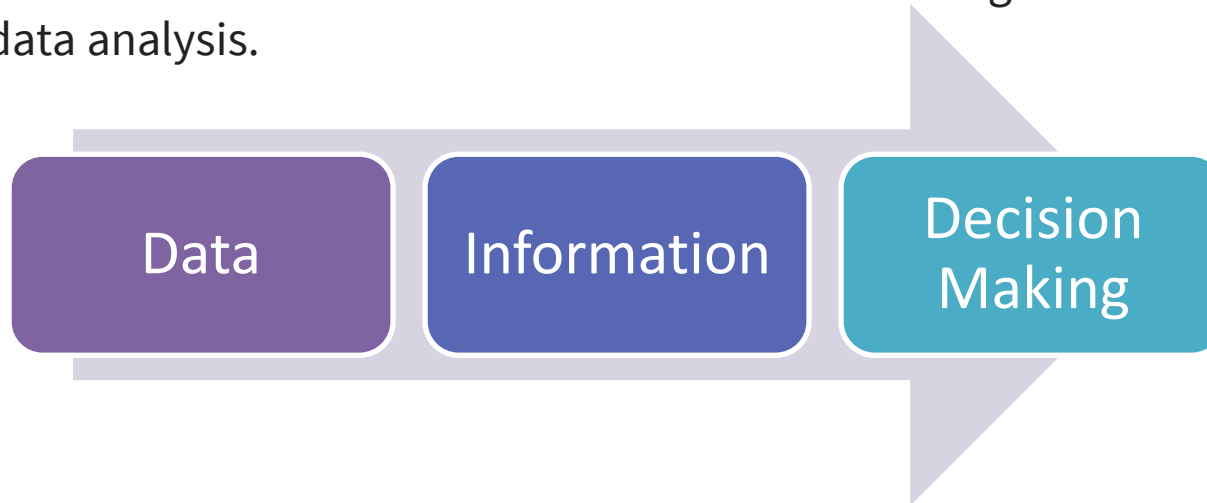


Data Analysis



What is Data Analysis?

Data analysis is defined as a process of cleaning, transforming, and modeling data to discover useful information for business decision-making. The purpose of Data Analysis is to extract useful information from data and taking the decision based upon the data analysis.



Infrastructure



Analytics



Applications

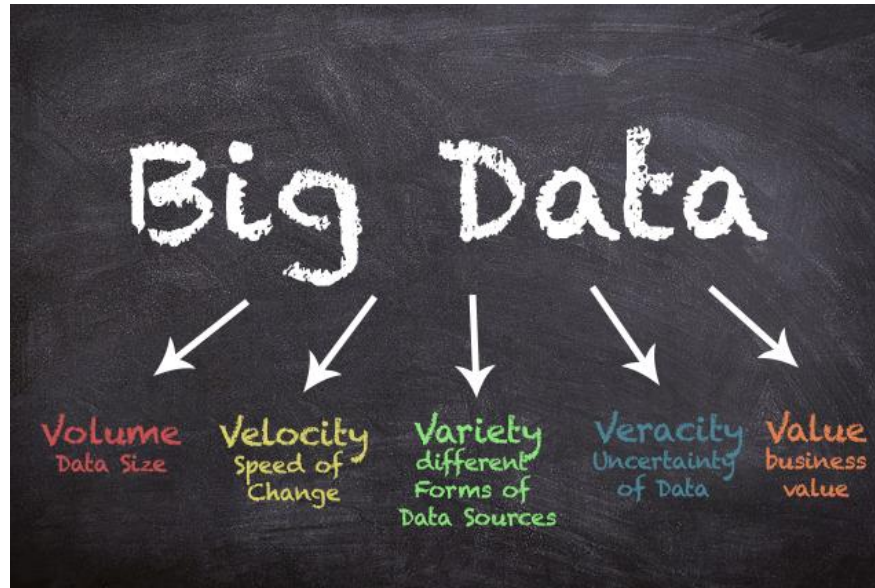


Open Source



Data Sources





What is your definition of Big Data? Researchers' understanding of the phenomenon of the decade

Maddalena Favaretto ✉, Eva De Clercq, Christophe Olivier Schneble, Bernice Simone Elger

Published: February 25, 2020 • <https://doi.org/10.1371/journal.pone.0228987>

Conclusion

The study identified an overall uncertainty or uneasiness among researchers towards the use of the term Big Data which might derive from the tendency to recognize Big Data as a shifting and evolving cultural phenomenon. Moreover, the currently enacted use of the term as a hyped-up buzzword might further aggravate the conceptual vagueness of Big Data.

When Big Data Hype Is Over, What Will Happen Next?

ARTICLE DATA SCIENCE



February 22, 2021 | Contributor: Kasey Panetta

From artificial intelligence to small data and graph technology, data and analytics leaders should think about leveraging these trends.

Gartner Top 10 Data and Analytics Trends, 2021



Accelerating Change

- 1 Smarter, Responsible, Scalable AI
- 2 Composable Data and Analytics
- 3 Data Fabric Is the Foundation
- 4 From Big to Small and Wide Data



Operationalizing Business Value

- 5 XOps
- 6 Engineering Decision Intelligence
- 7 D&A as a Core Business Function



Distributed Everything

- 8 Graph Relates Everything
- 9 The Rise of the Augmented Consumer
- 10 D&A at the Edge

gartner.com/SmarterWithGartner

Source: Gartner
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Gartner

Why is the future after Small Data, not Big Data?

Even though the focus of recent years was towards Big Data, most of the companies naturally possess small datasets not big ones. You can easily use Small datasets starting now. There are several reasons why smaller datasets are the future:

- Most organizations in the world will never have Big Data;
- In most cases small dataset is enough to solve a problem;
- It's easier to focus on an issue using small datasets;
- In many instances, small datasets are more relevant because, in order to produce Small Data one needs to analyze it first;
- Using Small Data, organizations can get actionable results without obtaining Big Data analytics;

TILL
NEXT
TIME

