Strat. Consultancy Project I & Data Analytics

DCU BUSINESS SCHOOL

Dr. Damien Dupré

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Assistant Professor - Business Research Methods

dotLAB
The Irish Institute of Digital Business

0. Introduction

Module Contact Details

- Strategic Consultancy Project I

Dr. John Loonam

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- Data Analytics

Dr. Damien Dupré

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About Me

- **Development of the DynEmo Facial Expression Database (Master)**
  - Dynamic and spontaneous emotions
  - Assessed with self-reports and by observers

- **Analysis of Emotional User Experience of Innovative Tech. (Industrial PhD)**
  - Understand users' acceptance of technologies from their emotional response
  - Based on multivariate self-reports

- **Evaluation of Emotions from Facial and Physiological Measures (Industrial PostDoc)**
  - Applications to marketing, sports and automotive industries
  - Dynamic changes with trend extraction techniques (2 patents)

- **Performance Prediction using Machine Learning (Academic PostDoc)**
  - Application to sport analytics
  - Big Data treatment (> 1 million users with activities recorded in the past 5 years)

Module Content

- **Introduction to Data Analytics (DD)**
  - Growth of Big Data: Data Analytics for Business & Management Decision Making

- **Research Design (DD & JL)**
  - Introduction to qualitative and quantitative research methods and skills

- **Writing a Research Proposal (JL)**
  - Role of literature review; identifying a research question; making contributions to theory and practice

Module Content

- **Data Analysis Workshops (DD)**
  - Qualitative/Quantitative data analysis
- **Data Interpretation (DD & JL)**
  - Interpreting qualitative and quantitative data; data visualisation & reports
- **Group Presentations (JL)**
  - Research Proposals; Feedback

Assessment Structure

100% Continuous divided in:

- Strategic Consultancy Project (30%)
  - Group Assessment:
    - Presentation on Research Proposals (10%)
    - Written Research Proposal (20%)

- Data Analytics (70%)
  - Individual Assessment: Data Analytic Report

Public

Sinead
- Product Manager in a Multinational Company
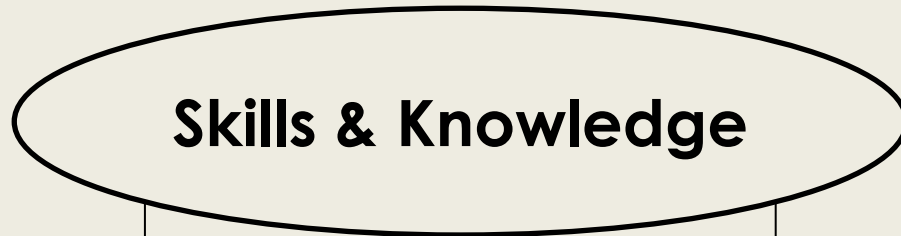- Knowledge of Statistics from Previous Master Degree

Patrick
- Business Development Manager in an Irish Unicorn
- Master Microsoft Excel

They common aim: Scale up to understand and challenge analyses from their data team

Target

Skills & Knowledge

Short and
Mid Term

Success in
MT5125

Success in other
MBA Modules

Long Term

Data Analyst
Expertise

Learning Outcomes

1. Have insight into the concepts and role of big data and data analytics in business and in management decision making

2. Understand, evaluate and apply qualitative and quantitative research methods tools and techniques

3. Understand and interpret data visualisation outputs and analytics reports

Data Analytics Plan

- Thur. 28/10/20 (2h)
  - Introduction, Data Storage and Access
- Thur. 05/11/20 (2h)
  - Data Cleaning and Transformations
- Sat. 12/12/20 (7h)
  - Descriptive Analytics and Interactive Dashboards
- Sat. 27/02/21 (7h)
  - Inferential Statistics and Hypothesis Testing
- Thur. 11/03/21 (2h)
  - Communication of Results

Data Analytic Assessment

- Write-up a report fully documenting the results of a systematic quantitative analysis of a dataset (send to you by email in January)

- This will require the use of a statistical software (SPSS, JAMOVI, ...)

Data Analytic Assessment

- You will illustrate your understanding about the full quantitative analysis process including
  - running descriptive statistics, including tables and graphics
  - assessing multi-item scale internal reliability (Cronbach's alpha)
  - using bivariate and multivariate inferential statistics

Assessment Deadline

- Individual Assignments should be submitted to loop no later than **June 21st 2021** by **12pm**.
- Individual assignment is to be submitted via MT5125's Loop page.
- Late assignments are not allowed

QUESTIONS?